REFERENCES

AAP (2020a). *Jaarverslag 2019*. Almere, the Netherlands: Animal Advisory and Protection (AAP). Available at: https://www.aap.nl/wp-content/uploads/2021/11/Jaarverslag-2019-DEF-gecomprimeerd.pdf.

AAP (2020b). *Ook Castilla-La Mancha verbiedt circussen met wilde dieren*. Almere, the Netherlands: Animal Advisory and Protection (AAP). Available at: https://www.aap.nl/nieuwsbericht/ook-castilla-la-mancha-verbiedt-circussen-met-wilde-dieren/.

AAP (n.d.). *Outplacement*. Almere, the Netherlands: Animal Advisory and Protection (AAP). Available at: https://en.aap.eu/outplacement/. Accessed: May, 2022.

AAWC (2020). *4th Africa Animal Welfare Conference: Action 2020 Resolutions*. Nairobi, Kenya: Africa Animal Welfare Conference (AAWC). Available at: https://www.aawconference.org/2020/4th_Africa_Animal_Welfare_Conference_Action_2020_Resolutions.pdf.

AAWC (n.d.). *About*. Nairobi, Kenya: Africa Animal Welfare Conference (AAWC). Available at: https://www.aawconference.org/index.php/about-us. Accessed: May, 2022.

Abbott, R.C. (2020). Wildlife vaccination – growing in feasibility? *Cornell Wildlife Health Laboratory*, February 17, 2020. Available at: https://cwhl.vet.cornell.edu/article/wildlife-vaccination-growing-feasibility.

Abelló, M.T., Rietkerk, F. and Bemment, N. (2017). *EAZA Great Ape TAG: Best Practice Guidelines Gorilla (*Gorilla gorilla gorilla*)*. Barcelona, Spain: Barcelona Zoo. Available at: https://www.eaza.net/conservation/programmes/#BPG.

Acevedo-Whitehouse, K. and Duffus, A.L. (2009). Effects of environmental change on wildlife health. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **364**(1534), 3429–38.

Adamo, S.A. (2012). The effects of the stress response on immune function in invertebrates: an evolutionary perspective on an ancient connection. *Hormones and Behavior*, **62**(3), 324–30. DOI: 10.1016/j.yhbeh.2012.02.012.

Adams, W.M. and Infield, M. (2003). Who is on the gorilla's payroll? Claims on tourist revenue from a Ugandan National Park. *World Development*, **31**(1), 177–90.

Addison, C. and Malone, N. (2018). An experimental ethics, but an ethical experiment? Anthropological perspectives on using unproven vaccines on endangered primates. *American Journal of Bioethics*, **18**(10), 53–5. DOI: 10.1080/15265161.2018.1513592.

Adefuye, M.A., Manjunatha, N., Ganduri, V., *et al.* (2022). Tuberculosis and cardiovascular complications: an overview. *Cureus*, **14**(8), e28268. DOI: 10.7759/cureus.28268.

adnCUBA (2020). Monos del Zoológico de 26 en La Habana atacan a un periodista oficialista mientras trabajaba. *adnCUBA*, July 8, 2020. Available at: https://adncuba.com/noticias-de-cuba/entretenimiento/monos-del-zoologico-de-26-en-la-habana-atacan-un-periodista.

AFAC (2017). *AIIMS: Australasian Inter-Service Incident Management System*. Melbourne, Australia: Australasian Fire and Emergency Service Authorities Council (AFAC). Available at: https://www.afac.com.au/initiative/aiims.

AFP (2020). "Fin progressive" des animaux sauvages dans les cirques itinérants. *Le Point*, September 29, 2020. Available at: https://www.lepoint.fr/societe/fin-progressive-des-animaux-sauvages-dans-les-cirques-itinerants-29-09-2020-2394102_23.php.

Agoramoorthy, G. (2010). Setting standards for evaluation of captive facilities, Southeast Asia. In *Wild Mammals in Captivity: Principles and Techniques*, ed. D. G. Kleiman, K. V. Thompson and C. K. Baer. Chicago, IL: University of Chicago Press, pp. 28–31.

Aguilera, R., Corringham, T., Gershunov, A. and Benmarhnia, T. (2021). Wildfire smoke impacts respiratory health more than fine particles from other sources: observational evidence from Southern California. *Nature Communications*, **12**(1), 1493. DOI: 10.1038/s41467-021-21708-0.

Ahebwa, W.M., van der Duim, R. and Sandbrook, C. (2012). Tourism revenue sharing policy at Bwindi Impenetrable National Park, Uganda: a policy arrangements approach. *Journal of Sustainable Tourism*, **20**(3), 377–94. DOI: 10.1080/09669582.2011.622768.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 15 Nov 2026 at 20:46:16, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781009071727.013

AIDR (2017). *Managing Exercises Handbook 3*. Melbourne, Australia: Australian Institute for Disaster Resilience (AIDR). Available at: https://knowledge.aidr.org.au/media/3547/handbook-3-managing-exercises.pdf.

AIDR (2020). *Emergency Planning*. Melbourne, Australia: Australian Institute for Disaster Resilience (AIDR). Available at: https://www.aidr.org.au/media/8313/aidr_handbookcollection_emergencyplanning_2020.pdf.

AIDR (n.d.). *Australian Disaster Resilience Glossary*. Melbourne, Australia: Australian Institute for Disaster Resilience (AIDR). Available at: https://knowledge.aidr.org.au/resources/adr-glossary/. Accessed: July, 2022.

Ainerukundo, E., Gaffikin, L. and Kalema-Zikusoka, G. (2019). Evaluation of a community-based health and conservation model at Bwindi Impenetrable National Park. In *2nd African Primatological Society Conference. Primate Conservation in Africa: Challenges and Opportunities*, ed. African Primatological Society (APS). Entebbe, Uganda: APS, p. 87. Available at: https://apsuganda.africanprimatologicalsociety.org/book-of-abstracts/.

Airhart, E. (2018). Even zoos are learning the art of doomsday prepping. *Wired*, December 13, 2018. Available at: https://www.wired.com/story/even-zoos-are-learning-the-art-of-doomsday-prepping/.

AITC [The Animal Issues Thematic Cluster] (n.d.). *The Animal Issues Thematic Cluster*. Available at: https://animalissuesun.org/. Accessed: May, 2022.

Akinyi, M.Y., Tung, J., Jeneby, M., *et al*. (2013). Role of grooming in reducing tick load in wild baboons (*Papio cynocephalus*). *Animal Behaviour*, **85**(3), 559–68. DOI: 10.1016/j.anbehav.2012.12.012.

Al-Dahash, H., Thayaparan, M. and Kulatunga, U. (2016). Understanding the terminologies: disaster, crisis and emergency. In *Proceedings of the 3rd Annual ARCOM Conference, 5–7 September 2016, Vol. 2*, ed. P. Chan and C. Nieilson. Manchester, UK: Association of Researchers in Construction Management (ARCOM), pp. 1191–200.

Allan, B.M., Nimmo, D.G., Ierodiaconou, D., *et al*. (2018). Futurecasting ecological research: the rise of technoecology. *Ecosphere*, **9**(5), e02163. DOI: 10.1002/ecs2.2163.

Allela, L., Boury, O., Pouillot, R., *et al*. (2005). Ebola virus antibody prevalence in dogs and human risk. *Emerging Infectious Diseases*, **11**(3), 385–90. DOI: 10.3201/eid1103.040981.

ALPZA (n.d.). *Acreditación*. Santiago, Chile: La Asociación Latinoamericana de Parques Zoológicos y Acuarios (ALPZA). Available at: https://www.alpza.com/acreditacion. Accessed: October, 2020.

Altizer, S., Nunn, C.L., Thrall, P.H., *et al*. (2003). Social organization and parasite risk in mammals: integrating theory and empirical studies. *Annual Review of Ecology, Evolution, and Systematics*, **34**(1), 517–47. DOI: 10.1146/annurev.ecolsys.34.030102.151725.

Alvarez-Berríos, N.L. and Mitchell Aide, T. (2015). Global demand for gold is another threat for tropical forests. *Environmental Research Letters*, **10**(1), 014006. DOI: 10.1088/1748-9326/10/1/014006.

Ambassade de France (2019). *Rencontre avec Pauline Grentzinger Docteur vétérinaire au parc de la Lékédi*. Libreville, Gabon: Ambassade de France. Available at: https://ga.ambafrance.org/Rencontre-avec-Pauline-Grentzinger-Docteur-veterinaire-au-parc-de-la-Lekedi.

Ameca y Juárez, E.I., Ellis, E.A. and Rodríguez-Luna, E. (2015). Quantifying the severity of hurricanes on extinction probabilities of a primate population: insights into "island" extirpations. *American Journal of Primatology*, **77**(7), 786–800. DOI: 10.1002/ajp.22402.

Ampumuza, C. and Driessen, C. (2021). Gorilla habituation and the role of animal agency in conservation and tourism development at Bwindi, South Western Uganda. *Environment and Planning E: Nature and Space*, **4**(4), 1601–21. DOI: 10.1177/2514848620966502.

Ancrenaz, M. (2015). *The conservation management and conservation medicine of orang-utan* (Pongo pygmaeus morio) *in Sabah, Malaysia*. PhD thesis. Berlin, Germany: Freien Universität.

Ancrenaz, M. (2018). *Arcus Disease Strategy*. Unpublished work. New York, NY: Arcus Foundation.

Ancrenaz, M., Ambu, L., Sunjoto, I., *et al*. (2010). Recent surveys in the forests of Ulu Segama Malua, Sabah, Malaysia, show that orang-utans (*P. p. morio*) can be maintained in slightly logged forests. *PLoS ONE*, **5**(7), e11510. DOI: 10.1371/journal.pone.0011510.

Ancrenaz, M., Calaque, R. and Lackman-Ancrenaz, I. (2004). Orangutan nesting behavior in disturbed forest of Sabah, Malaysia: implications for nest census. *International Journal of Primatology*, **25**(5), 983–1000.

Ancrenaz, M., Cheyne, S.M., Humle, T. and Robbins, M.M. (2020). The impact of killing, capture and trade on apes and their habitat. In *State of the Apes: Killing, Capture, Trade and Conservation*, ed. Arcus Foundation. Cambridge, UK: Cambridge University Press, pp. 25–47. Available at: https://www.stateoftheapes.com/volume-4-killing-capture-trade/.

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Ancrenaz, M., Dabek, L. and O'Neil, S. (2007). The costs of exclusion: recognizing a role for local communities in biodiversity conservation. *PLoS Biology*, **5**(11), e289. DOI: 10.1371/journal.pbio.0050289.

Ancrenaz, M., Gumal, M., Marshall, A.J., *et al.* (2016). Pongo pygmaeus *(errata version published in 2018). The IUCN Red List of Threatened Species 2016: e.T17975A123809220.* Gland, Switzerland: International Union for Conservation of Nature (IUCN). DOI: 10.2305/IUCN.UK.2016-1.RLTS.T17975A17966347.en.

Ancrenaz, M., Oram, F., Ambu, L., *et al.* (2015). Of *Pongo*, palms and perceptions: a multidisciplinary assessment of Bornean orang-utans *Pongo pygmaeus* in an oil palm context. *Oryx*, **49**(3), 465–72. DOI: 10.1017/S0030605313001270.

Ancrenaz, M., Oram, F., Nardiyono, N., *et al.* (2021). Importance of small forest fragments in agricultural landscapes for maintaining orangutan metapopulations. *Frontiers in Forests and Global Change*, **4**, 560944. DOI: 10.3389/ffgc.2021.560944.

Ancrenaz, M., Sollmann, R., Meijaard, E., *et al.* (2014). Coming down from the trees: is terrestrial activity in Bornean orangutans natural or disturbance driven? *Scientific Reports*, **4**, 4024. DOI: 10.1038/srep04024.

Anderson, D.P., Nordheim, E.V. and Boesch, C. (2006). Environmental factors influencing the seasonality of estrus in chimpanzees. *Primates*, **47**(1), 43–50. DOI: 10.1007/s10329-005-0143-y.

Ando, C., Iwata, Y. and Yamagiwa, J. (2008). Progress of habituation of western lowland gorillas and their reaction to observers in Moukalaba-Doudou National Park, Gabon. *African Study Monographs*, **39**, 55–69.

Andrews, K., Comstock, G., Crozier, G.K.D., *et al.* (2018). *Chimpanzee Rights: The Philosophers' Brief.* London, UK: Routledge. DOI: 10.4324/9780429461071.

Animondial (n.d.). *Animal Protection Network.* Hove, UK: Animondial. Available at: https://animondial.com/animal-protection-network. Accessed: May, 2022.

Anthes, E. (2022). When people take pandemic precautions, gorillas breathe easier. *The New York Times*, February 21, 2022. Available at: https://www.nytimes.com/2022/02/21/health/gorillas-respiratory-illness-colds.html.

Antonation, K.S., Grützmacher, K., Dupke, S., *et al.* (2016). *Bacillus cereus* biovar *anthracis* causing anthrax in sub-Saharan Africa – chromosomal monophyly and broad geographic distribution. *PLoS Neglected Tropical Diseases*, **10**(9), e0004923. DOI: 10.1371/journal.pntd.0004923.

Ape Action Africa (n.d.). *Mefou Primate Sanctuary.* Bristol, UK: Ape Action Africa. Available at: https://www.apeactionafrica.org/mefou-primate-sanctuary. Accessed: October, 2020.

Ape Alliance (2018). Chimpanzees in Chinese captive wild animal facilities. *Ape Alliance News*, August 17, 2018. Available at: https://4apes.com/news/ape-alliance/item/1614-new-ape-alliance-report-on-chimpanzees-in-chinese-captive-wild-animal-facilities/.

Ape Monkey Rescue (n.d.). *Chimpanzees.* Abercrave, UK: Wales Ape and Monkey Sanctuary. Available at: http://www.ape-monkey-rescue.org.uk/chimpanzees.html. Accessed: December, 2020.

A.P.E.S. (n.d.). *Meet the Primates.* Blacklick, OH: American Primate Educational Sanctuary (A.P.E.S.). Available at: https://apesohio.weebly.com/meet-the-primates.html. Accessed: October, 2020.

A.P.E.S. Wiki Team (2019a). *Moyen-Bafing National Park. A.P.E.S. Wiki.* Munich, Germany: Max Planck Society for the Advancement of Science e.V. Available at: https://wiki.iucnapesportal.org/index.php/Moyen-Bafing_National_Park.

A.P.E.S. Wiki Team (2019b). *Pic de Fon Classified Forest. A.P.E.S. Wiki.* Munich, Germany: Max Planck Society for the Advancement of Science e.V. Available at: https://wiki.iucnapesportal.org/index.php/Pic_de_Fon_Classified_Forest.

Appleby, M.C. and Sherwood, L. (2007). *Animal Welfare Matters to Animals, People and the Environment: the Case for a Universal Declaration on Animal Welfare.* London, UK: World Society for the Protection of Animals (WSPA). Available at: https://www.worldanimalprotection.ca/sites/default/files/media/ca_-_en_files/case_for_a_udaw_tcm22-8305.pdf.

Aquatic Habitats in Integrated Urban Water Management (n.d.). *Water Cycle in Urban Areas.* Paris, France: United Nations Educational, Scientific and Cultural Organization (UNESCO). Available at: http://www.aquatic.unesco.lodz.pl/index.php?p=water_cycle. Accessed: October, 2022.

Arandjelovic, M., Head, J., Kühl, H., *et al.* (2010). Effective non-invasive genetic monitoring of multiple wild western gorilla groups. *Biological Conservation*, **143**(7), 1780–91. DOI: 10.1016/j.biocon.2010.04.030.

Arandjelovic, M., Head, J., Rabanal, L.I., *et al.* (2011). Non-invasive genetic monitoring of wild central chimpanzees. *PLoS ONE*, **6**(3), e14761. DOI: 10.1371/journal.pone.0014761.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 15 Nov 2026 at 20:46:16, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781009071727.013

Archabald, K. and Naughton-Treves, L. (2001). Tourism revenue-sharing around national parks in western Uganda: early efforts to identify and reward local communities. *Environmental Conservation*, **28**(2), 135–49. DOI: 10.1017/S0376892901000145.

Arcus Foundation (2014). *State of the Apes: Extractive Industries and Ape Conservation.* Cambridge, UK: Cambridge University Press. Available at: https://www.stateoftheapes.com/volume-1-extractive-industries/.

Arcus Foundation (2015). *State of the Apes: Industrial Agriculture and Ape Conservation.* Cambridge, UK: Cambridge University Press. Available at: https://www.stateoftheapes.com/volume-2-industrial-agriculture/.

Arcus Foundation (2018). *State of the Apes: Infrastructure Development and Ape Conservation.* Cambridge, UK: Cambridge University Press. Available at: https://www.stateoftheapes.com/volume-3-infrastructure-development/.

Arcus Foundation (2020). *State of the Apes: Killing, Capture, Trade and Conservation.* Cambridge, UK: Cambridge University Press Available at: https://www.stateoftheapes.com/volume-4-killing-capture-trade/.

Arlian, L.G., Vyszenski-Moher, D.L. and Pole, M. (1989). Survival of adults and developmental stages of *Sarcoptes scabiei* var. *canis* when off the host. *Experimental and Applied Acarology*, **6**, 181–7. DOI: 10.1007/BF01193978.

Armstrong-Mensah, E.A. and Ndiaye, S.M. (2018). Global health security agenda implementation: a case for community engagement. *Health Security*, **16**(4), 217–23. DOI: 10.1089/hs.2017.0097.

Arora, N., van Noordwijk, M.A., Ackermann, C., *et al.* (2012). Parentage-based pedigree reconstruction reveals female matrilineal clusters and male-biased dispersal in nongregarious Asian great apes, the Bornean orang-utans (*Pongo pygmaeus*). *Molecular Ecology*, **21**(13), 3352–62. DOI: 10.1111/j.1365-294X.2012.05608.x.

ARRC Task Force (n.d.). *IUCN SSC Primate Specialist Group Section on Great Apes & Section on Small Apes ARRC Task Force. Avoid, Reduce, Restore Negative Impacts from Energy, Extractive and Associated Infrastructure Projects on Apes and Contribute Positively to their Conservation.* ARRC Task Force. Available at: https://www.arrctaskforce.org/. Accessed: December, 2022.

Ashbury, A.M., Willems, E.P., Utami-Atmoko, S.S., *et al.* (2020). Home range establishment and the mechanisms of philopatry among female Bornean orangutans (*Pongo pygmaeus wurmbii*) at Tuanan. *Behavioral Ecology and Sociobiology*, **74**(4), 42. DOI: 10.1007/s00265-020-2818-1.

ASP (n.d.). *Kibale Snare Removal Program.* American Society of Primatologists (ASP). Available at: https://www.asp.org/2020/08/20/kibale-snare-removal-program/. Accessed: October, 2022.

ATTA [Adventure Travel Trade Association] (2020). Classic Africa Safaris reports gorilla "baby boom" in Uganda; tourism reopens. *Adventure Travel News*, September 24, 2020. Available at: https://www.adventuretravelnews.com/classic-africa-safaris-reports-gorilla-baby-boom-in-uganda-tourism-reopens.

Aultman, J. (2008). Moral courage through a collective voice. *American Journal of Bioethics*, **8**(4), 67–9. DOI: 10.1080/15265160802147140.

Aung, P., Lwin, N., Aung, T.H., *et al.* (2023). Confirmation of skywalker hoolock gibbon (*Hoolock tianxing*) in Myanmar extends known geographic range of an endangered primate. *International Journal of Primatology*, in press.

Australian Government (2021). *Digital Earth Australia Hotspots.* Canberra, Australia: Commonwealth of Australia (Geoscience Australia). Available at: https://hotspots.dea.ga.gov.au/#/.

Avanzi, C., del-Pozo, J., Benjak, A., *et al.* (2016). Red squirrels in the British Isles are infected with leprosy bacilli. *Science*, **354**(6313), 744–7. DOI: 10.1126/science.aah3783.

Avoi, R. and Liaw, Y.C. (2021). Tuberculosis death epidemiology and its associated risk factors in Sabah, Malaysia. *International Journal of Environmental Research and Public Health*, **18**(18), 9740. DOI: 10.3390/ijerph18189740.

AZA Ape TAG [Taxon Advisory Group] (2010). *Chimpanzee (*Pan troglodytes*) Care Manual.* Silver Spring, MD: Association of Zoos and Aquariums (AZA). Available at: https://nagonline.net/wp-content/uploads/2014/05/ChimpanzeeCareManual2010-NAG-EDIT.pdf.

AZA Ape TAG [Taxon Advisory Group] (2017). *Orangutan (*Pongo*) Care Manual.* Silver Spring, MD: Association of Zoos and Aquariums (AZA). Available at: https://ams.aza.org/iweb/upload/Orangutan%20Care%20Manual%202017-de54741f.pdf.

AZA Gorilla Species Survival Plan Program (2017). *Western Lowland Gorilla (*Gorilla gorilla gorilla*) Care Manual.* Silver Spring, MD: Association of Zoos and Aquariums (AZA). Available at: https://assets.speakcdn.com/assets/2332/gorilla_care_manual_2018.pdf.

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Baker, J., Milner-Gulland, E.J. and Leader-Williams, N. (2012). Park gazettement and integrated conservation and development as factors in community conflict at Bwindi Impenetrable Forest, Uganda: drivers of community conflict at Bwindi. *Conservation Biology*, **26**(1), 160–70. DOI: 10.1111/j.1523-1739.2011.01777.x.

Baker, L. (2017). Translocation biology and the clear case for compassionate conservation. *Israel Journal of Ecology and Evolution*, **63**(3–4), 52–60. DOI: 10.1163/22244662-20181026.

Baker, L. and Winkler, R. (2020). Asian elephant rescue, rehabilitation and rewilding. *Animal Sentience*, **28**(1). DOI: 10.51291/2377-7478.1506.

Baker, S.E., Cain, R., van Kesteren, F., *et al.* (2013). Rough trade: animal welfare in the global wildlife trade. *BioScience*, **63**(12), 928–38. DOI: 10.1525/bio.2013.63.12.6.

Balasubramaniam, K.N., Aiempichitkijkarn, N., Kaburu, S.S.K., *et al.* (2022). Impact of joint interactions with humans and social interactions with conspecifics on the risk of zooanthroponotic outbreaks among wildlife populations. *Scientific Reports*, **12**, 11600. DOI: 10.1038/s41598-022-15713-6.

Bales, K.L. (2020). Introduction to special section on COVID-19 in primatology. *American Journal of Primatology*, **82**(8), e23174. DOI: 10.1002/ajp.23174.

Ban Animal Trading and EMS Foundation (2020). *Breaking Point: Uncovering South Africa's Shameful Live Wildlife Trade with China.* Johannesburg, South Africa: EMS Foundation. Available at: https://emsfoundation.org.za/the-breaking-point-uncovering-south-africas-shameful-live-wildlife-trade-with-china/.

Banes, G.L., Chua, W., Elder, M. and Kao, J. (2018). Orang-utans *Pongo* spp in Asian zoos: current status, challenges and progress towards long-term population sustainability. *International Zoo Yearbook*, **52**(1), 150–63. DOI: 10.1111/izy.12178.

Barber, J.C.E. and Mellen, J. (2008). Assessing animal welfare in zoos and aquariums: is it possible? In *The Well-Being of Animals in Zoo and Aquarium Sponsored Research: Putting Best Practices Forward*, ed. T. L. Bettinger and J. T. Bielitzki. Greenbelt, MD: Scientists Center for Animal Welfare, pp. 39–52.

Barnhill, A., Joffe, S. and Miller, F.G. (2016). The ethics of infection challenges in primates. *Hastings Center Report*, **46**(4), 20–6. DOI: 10.1002/hast.580.

Barone, J. (2015). Gorilla doctors: these veterinarians are saving Africa's gorillas, one patient at a time. *Science World/Current Science*, **71**(7), 8–12.

Bartlett, T.Q. (2011). The Hylobatidae: small apes of Asia. In *Primates in Perspective*, ed. C. Campbell, A. Fuentes, K. C. Mackinnon, S. K. Bearder and R. M. Stumpf. New York, NY: Oxford University Press, pp. 300–12.

Basabose, A.K. and Yamagiwa, J. (2002). Factors affecting nesting site choice in chimpanzees at Tshibati, Kahuzi-Biega National Park: influence of sympatric gorillas. *International Journal of Primatology*, **23**(2), 263–82. DOI: 10.1023/A:1013879427335.

Bastin, J.F., Barbier, N., Réjou-Méchain, M., *et al.* (2015). Seeing Central African forests through their largest trees. *Scientific Reports*, **5**, 13156. DOI: 10.1038/srep13156.

Batavia, C., Nelson, M.P., Bruskotter, J.T., *et al.* (2021). Emotion as a source of moral understanding in conservation. *Conservation Biology*, **35**(5), 1380–7. DOI: 10.1111/cobi.13689.

Batavia, C., Nelson, M.P. and Wallach, A.D. (2020). The moral residue of conservation. *Conservation Biology*, **34**(5), 1114–21. DOI: 10.1111/cobi.13463.

Baum, S.E., Machalaba, C., Daszak, P., Salerno, R.H. and Karesh, W.B. (2017). Evaluating One Health: are we demonstrating effectiveness? *One Health*, **3**, 5–10. DOI: 10.1016/j.onehlt.2016.10.004.

Baylet, R., Thivolet, J., Sepetjian, M., Nouhouay, Y. and Baylet, M. (1971). La tréponématose naturelle ouverte du singe *Papio papio* en Casamance [Natural open treponematosis in the *Papio papio* baboon in Casamance] [in French]. *Bulletin de la Société de Pathologie Exotique et de ses Filiales*, **64**(6), 842–6.

BBC (2016). Twycross Zoo begins great ape heart disease study. *BBC News*, July 21, 2016. Available at: https://www.bbc.com/news/uk-england-leicestershire-36847743.

BBC (2020). Rafiki, Uganda's rare silverback mountain gorilla, killed by hunters. *BBC News*, June 12, 2020. Available at: https://www.bbc.com/news/world-africa-53024073.

BBC News (2002). Zoo animals killed in Prague floods. *BBC News World: Europe*, August 14, 2002. Available at: http://news.bbc.co.uk/2/hi/europe/2193483.stm.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 15 Nov 2026 at 20:46:16, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781009071727.013

BBOP (2013). *To No Net Loss and Beyond: An Overview of the Business and Biodiversity Offsets Programme (BBOP).* Washington DC: Business and Biodiversity Offsets Programme (BBOP). Available at: https://www.forest-trends.org/publications/to-no-net-loss-and-beyond/.

BCT (2020). *Essential Conservation Fencing Infrastructure. Guidelines, Standards and Cost Benchmarks.* Lismore, Australia: NSW Government Biodiversity Conservation Trust (BCT). Available at: https://www.bct.nsw.gov.au/sites/default/files/2020-11/BCT%20Essential%20Conservation%20Fencing%20guide%20Nov%202020.pdf.

Beament, E. (2020). "Ecotourism" shut down to protect mountain gorillas. *The Ecologist*, March 25, 2020. Available at: https://theecologist.org/2020/mar/25/ecotourism-shut-down-protect-mountain-gorillas.

Bearder, S.K. and Martin, R.D. (1980). The social organization of a nocturnal primate revealed by radio tracking. In *A Handbook on Biotelemetry and Radio Tracking*, ed. C. J. Amlaner and D. W. Macdonald. Oxford, UK: Pergamon, pp. 633–48. DOI: 10.1016/B978-0-08-024928-5.50082-8.

Beastall, C.A., Bouhuys, J. and Ezekiel, A. (2016). *Apes in Demand: For Zoo and Wildlife Attractions in Peninsular Malaysia and Thailand.* Selangor, Malaysia: TRAFFIC. Available at: http://www.trafficj.org/publication/16_Apes_in_Demand.pdf.

Beausoleil, N.J., Mellor, D.J., Baker, L., *et al.* (2018). "Feelings and fitness" not "feelings or fitness" – the raison d'être of conservation welfare, which aligns conservation and animal welfare objectives. *Frontiers in Veterinary Science*, **5**, November 27 2018. DOI: 10.3389/fvets.2018.00296.

Beck, B. (2017). *Unwitting Travelers: A History of Primate Reintroduction.* Berlin, MD: Salt Water Media.

Beck, B., Walkup, K., Rodrigues, M., *et al.* (2007). *Best Practice Guidelines for the Re-introduction of Great Apes.* Gland, Switzerland: International Union for Conservation of Nature (IUCN) Species Survival Commission (SSC) Primate Specialist Group (PSG). Available at: https://portals.iucn.org/library/sites/library/files/documents/SSC-OP-035.pdf.

Becker, D.J., Albery, G.F., Kessler, M.K., *et al.* (2020). Macroimmunology: the drivers and consequences of spatial patterns in wildlife immune defence. *Journal of Animal Ecology*, **89**(4), 972–95. DOI: 10.1111/1365-2656.13166.

Behie, A.M., Pavelka, M.S.M., Hartwell, K., Champion, J. and Notman, H. (2019). Alas the storm has come again! The impact of frequent natural disasters on primate conservation. In *Primate Research and Conservation in the Anthropocene*, ed. A. M. Behie, J. A. Teichroeb and N. Malone. Cambridge, UK: Cambridge University Press, pp. 237–56. DOI: 10.1017/9781316662021.014.

Behringer, V. and Deschner, T. (2017). Non-invasive monitoring of physiological markers in primates. *Hormones and Behavior*, **91**, 3–18. DOI: 10.1016/j.yhbeh.2017.02.001.

Behringer, V., Stevens, J.M.G., Hohmann, G., *et al.* (2014). Testing the effect of medical positive reinforcement training on salivary cortisol levels in bonobos and orangutans. *PLoS ONE*, **9**(9), e108664. DOI: 10.1371/journal.pone.0108664.

Bell, H., Kulkarni, S. and Dalton, L. (2003). Organizational prevention of vicarious trauma. *Families in Society: The Journal of Contemporary Human Services*, **84**(4), 463–70. DOI: 10.1606/1044-3894.131.

Belmaker, G. (2018). DRC breaches logging moratorium for Chinese-owned companies. *Mongabay*, 28 February 2018. Available at: https://news.mongabay.com/2018/02/drc-breaches-logging-moratorium-for-chinese-owned-companies/#.

Bemment, N., ed. (2018). *Orangutan EEP Best Practice Guidelines*, 1st edn. Amsterdam, the Netherlands: European Association of Zoos and Aquaria (EAZA) Great Ape Taxon Advisory Group (TAG). Available at: https://www.eaza.net/assets/Uploads/CCC/BPG-new-version/2018-OU-EEP-Best-Practice-Guidelines-final-NV.pdf.

Bennett, N.J., Roth, R., Klain, S.C., *et al.* (2017). Conservation social science: understanding and integrating human dimensions to improve conservation. *Biological Conservation*, **205**, 93–108. DOI: 10.1016/j.biocon.2016.10.006.

Berg, C. (2018). Restoring what we have destroyed: animal welfare aspects of wildlife conservation, reintroduction and rewilding programmes. In *Animal Welfare in a Changing World*, ed. A. Butterworth. Wallingford, UK: CABI International, pp. 68–79.

Berga, S.L. (2008). Stress and reproduction: a tale of false dichotomy? *Endocrinology*, **149**(3), 867–8. DOI: 10.1210/en.2008-0004.

Bergl, R.A., Dunn, A., Fowler, A., *et al.* (2016). Gorilla gorilla *ssp.* diehli *(errata version published in 2016). The IUCN Red List of Threatened Species 2016: e.T39998A102326240.* Gland, Switzerland: International Union for Conservation of Nature (IUCN). DOI: 10.2305/IUCN.UK.2016-2.RLTS.T39998A17989492.en.

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Bermejo, M., Rodríguez-Teijeiro, J.D., Illera, G., *et al.* (2006). Ebola outbreak killed 5000 gorillas. *Science*, **314**(5805), 1564. DOI: 10.1126/science.1133105.

Bertolani, P. and Boesch, C. (2008). Habituation of wild chimpanzees (*Pan troglodytes*) of the South Group at Taï Forest, Côte d'Ivoire: empirical measure of progress. *Folia Primatologica*, **79**(3), 162–71. DOI: 10.1159/000111720.

BES [British Ecological Society] Press Office (2022). Scientists study tourists to protect great apes from disease transmission. *British Ecological Society News and Opinion*, September 5, 2022. Available at: https://www.britishecologicalsociety.org/scientists-study-tourists-to-protect-great-apes-from-disease-transmission.

Bessone, M., Booto, L., Santos, A.R., Kühl, H.S. and Fruth, B. (2021). No time to rest: how the effects of climate change on nest decay threaten the conservation of apes in the wild. *PLoS ONE*, **16**(6), e0252527. DOI: 10.1371/journal.pone.0252527.

Bettinger, T., Cox, D., Kuhar, C. and Leighty, K. (2021). Human engagement and great ape conservation in Africa. *American Journal of Primatology*, **83**(4), e23216. DOI: 10.1002/ajp.23216.

Bettinger, T.L., Leighty, K.A., Daneault, R.B., Richards, E.A. and Bielitzki, J.T. (2017). Behavioral management: the environment and animal welfare. In *Handbook of Primate Behavioral Management*, ed. S. J. Schapiro. Boca Raton, FL: CRC Press, pp. 37–51.

Beydoun, G., Dascalu, S., Dominey-Howes, D. and Sheehan, A. (2018). Disaster management and information systems: insights to emerging challenges. *Information Systems Frontiers*, **20**(4), 649–52. DOI: 10.1007/s10796-018-9871-6.

Beyer, W. and Turnbull, P.C.B. (2009). Anthrax in animals. *Molecular Aspects of Medicine*, **30**(6), 481–9.

Bhat, S.A., Mounsey, K.E., Liu, X. and Walton, S.F. (2017). Host immune responses to the itch mite, *Sarcoptes scabiei*, in humans. *Parasites & Vectors*, **10**(1), 385. DOI: 10.1186/s13071-017-2320-4.

BIAZA (2019). *BIAZA Animal Transfer Policy (ATP).* London, UK: British and Irish Association of Zoos and Aquariums (BIAZA). Available at: https://biaza.org.uk/downloader/41.

Binding, S., Farmer, H., Krusin, L. and Cronin, K. (2020). Status of animal welfare research in zoos and aquariums: where are we, where to next? *Journal of Zoo and Aquarium Research*, **8**(3), 166–74. DOI: 10.19227/jzar.v8i3.505.

Birke, L. (2002). Effects of browse, human visitors and noise on the behaviour of captive orang utans. *Animal Welfare*, **11**(2), 189–202. DOI: 10.1017/S0962728600028141.

Birot, H., Campera, M., Imron, M.A. and Nekaris, K.A.I. (2020). Artificial canopy bridges improve connectivity in fragmented landscapes: the case of Javan slow lorises in an agroforest environment. *American Journal of Primatology*, **82**(4), e23076. DOI: 10.1002/ajp.23076.

Bitariho, R., Akampurira, E. and Mugerwa, B. (2020). Regulated access to wild climbers has enhanced food security and minimized use of plastics by frontline households at a premier African protected area. *Conservation Science and Practice*, **2**(10), e275. DOI: 10.1111/csp2.275.

Bitty, E.A., Bi, S.G., Bene, J.-C.K., Kouassi, P.K. and McGraw, W.S. (2015). Cocoa farming and primate extirpation inside Cote D'ivoire's protected areas. *Tropical Conservation Science*, **8**(1), 95–113. DOI: 10.1177/194008291500800110.

Bizimungu, J. (2020). Rwanda announces promotional prices of gorilla-trekking permits. *The New Times*, June 18, 2020. Available at: https://www.newtimes.co.rw/news/rwanda-announces-promotional-prices-gorilla-trekking-permits.

Björk, J.R., Dasari, M., Grieneisen, L. and Archie, E.A. (2019). Primate microbiomes over time: longitudinal answers to standing questions in microbiome research. *American Journal of Primatology*, **81**(10–11), e22970. DOI: 10.1002/ajp.22970.

Blackett, T.A., McKenna, C., Kavanagh, L. and Morgan, D.R. (2017). The welfare of wild animals in zoological institutions: are we meeting our duty of care? *International Zoo Yearbook*, **51**(1), 187–202. DOI: 10.1111/izy.12143.

Blom, A. (2001a). *Ecological and economic impacts of gorilla-based tourism in Dzanga-Sangha, Central African Republic.* PhD thesis. Wageningen, the Netherlands: Wageningen University.

Blom, A. (2001b). Potentials and pitfalls of tourism in Dzanga-Sangha. *Gorilla Journal*, **22**, 40–1.

Blom, A., Cipolletta, C., Brunsting, A.M.H. and Prins, H.H.T. (2004). Behavioral responses of gorillas to habituation in the Dzanga-Ndoki National Park, Central African Republic. *International Journal of Primatology*, **25**(1), 179–96. DOI: 10.1023/B:IJOP.0000014649.15973.3a.

Bloom, P. (2017). *Against Empathy: The Case for Rational Compassion.* New York, NY: HarperCollins Publishers.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 15 Nov 2026 at 20:46:16, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781009071727.013

Bloomsmith, M.A., Clay, A.W., Ross, S.R., *et al.* (2020). Chimpanzees in US zoos, sanctuaries, and research facilities: a survey-based comparison of atypical behaviors. In *Chimpanzees in Context: A Comparative Perspective on Chimpanzee Behavior, Cognition, Conservation, and Welfare*, ed. L. M. Hopper and S. R. Ross. Chicago, IL: University of Chicago Press, pp. 481–508. DOI: 10.7208/chicago/9780226728032.003.0021.

Bloomsmith, M.A., Laule, G.E., Alford, P.L. and Thurston, R.H. (1994). Using training to moderate chimpanzee aggression during feeding. *Zoo Biology*, **13**(6), 557–66. DOI: 10.1002/zoo.1430130605.

Bloomsmith, M.A., Neu, K., Franklin, A., Griffis, C. and McMillan, J. (2015). Positive reinforcement methods to train chimpanzees to cooperate with urine collection. *Journal of the American Association for Laboratory Animal Science*, **54**(1), 66–9.

BNF (n.d.-a). *About Us.* Kalimantan, Indonesia: Borneo Nature Foundation (BNF). Available at: https://www.borneonaturefoundation.org/about/. Accessed: September, 2022.

BNF (n.d.-b). *Drones for Conservation.* Kalimantan, Indonesia: Borneo Nature Foundation (BNF). Available at: https://www.borneonaturefoundation.org/project/drones-for-conservation/. Accessed: September, 2022.

BNF (n.d.-c). *Fire-Fighting & Prevention.* Kalimantan, Indonesia: Borneo Nature Foundation (BNF). Available at: https://www.borneonaturefoundation.org/project/firefighting-prevention/. Accessed: September, 2022.

BNF (n.d.-d). *Understanding the Natural World is at the Heart of Effective, Sustainable Conservation Strategies.* Kalimantan, Indonesia: Borneo Nature Foundation (BNF). Available at: https://www.borneonaturefoundation.org/scientific-research/. Accessed: September, 2022.

BNF (n.d.-e). *Youth Education and Empowerment for Nature Conservation on Borneo.* Kalimantan, Indonesia: Borneo Nature Foundation (BNF). Available at: https://www.borneonaturefoundation.org/environmental-education/. Accessed: September, 2022.

Boesch, C., Crockford, C., Herbinger, I., *et al.* (2008). Intergroup conflicts among chimpanzees in Taï National Park: lethal violence and the female perspective. *American Journal of Primatology*, **70**(6), 519–32. DOI: 10.1002/ajp.20524.

Boesch, C., Hohmann, G. and Marchant, L., ed. (2002). *Behavioural Diversity in Chimpanzees and Bonobos*. Cambridge, UK: Cambridge University Press. DOI: 10.1017/CBO9780511606397.

Boesch, C., Kalan, A.K., Mundry, R., *et al.* (2020). Chimpanzee ethnography reveals unexpected cultural diversity. *Nature Human Behaviour*, **4**(9), 910–16. DOI: 10.1038/s41562-020-0890-1.

Bologna, M. and Aquino, G. (2020). Deforestation and world population sustainability: a quantitative analysis. *Scientific Reports*, **10**, 7631. DOI: 10.1038/s41598-020-63657-6.

BOSF (2020). *Annual Report 2019.* Bogor, Indonesia: Borneo Orangutan Survival Foundation (BOSF). Available at: https://www.orangutan.or.id/cfind/source/files/annual-reports/bosf-annual-report-2019.pdf.

BOSF (n.d.). *Our Story.* Bogor, Indonesia: Borneo Orangutan Survival Foundation (BOSF). Available at: https://www.orangutan.or.id/our-story. Accessed: September, 2022.

Botha, C.J., Coetser, H., Labuschagne, L. and Basson, A.T. (2015). Confirmed organophosphorus and carbamate pesticide poisonings in South African wildlife (2009–2014). *Journal of the South African Veterinary Association*, **86**(1), 1–4.

Bowman, Q.P. and Arnoldi, J.M. (1999). Management of animal health emergencies in North America: prevention, preparedness, response and recovery. *Revue Scientifique et Technique de l'Office International des Épizooties*, **18**(1), 76–103. DOI: 10.20506/rst.18.1.1149.

Boyer-Ontl, K.M. and Pruetz, J.D. (2014). Giving the forest eyes: the benefits of using camera traps to study unhabituated chimpanzees (*Pan troglodytes verus*) in southeastern Senegal. *International Journal of Primatology*, **35**(5), 881–94. DOI: 10.1007/s10764-014-9783-3.

Brando, S. and Buchanan-Smith, H.M. (2018). The 24/7 approach to promoting optimal welfare for captive wild animals. *Behavioural Processes*, **156**, 83–95. DOI: 10.1016/j.beproc.2017.09.010.

Brando, S. and Coe, J. (2022). Confronting back-of-house traditions: primates as a case study. *Journal of Zoological and Botanical Gardens*, **3**(3), 366–97. DOI: 10.3390/jzbg3030029.

Brant, H.L., Ewers, R.M., Vythilingam, I., *et al.* (2016). Vertical stratification of adult mosquitoes (Diptera: Culicidae) within a tropical rainforest in Sabah, Malaysia. *Malaria Journal*, **15**(1), 370. DOI: 10.1186/s12936-016-1416-1.

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Brent, L. (2001). *The Care and Management of Captive Chimpanzees*. San Antonio, TX: The American Society of Primatologists.

Bridgers, J. (2021). How has COVID19 shifted the global dialogue on animal welfare? And how to move forward to make a global convention for animals a reality. Presented at: *Expert Panel Discussion "UNCAHP a Better World for All Animals", January 15, 2021*. Global Animal Law (GAL) Association and Global Research Network (GRN) Animals and Biodiversity Think Tank Programme. Available at: https://www.youtube.com/watch?v=xZIxZPB2uXo.

Brncic, T.M., Amarasekaran, B. and McKenna, A. (2010). *Sierra Leone National Chimpanzee Census Project August 2010*. Freetown, Sierra Leone: Tacugama Chimpanzee Sanctuary. Available at: http://www.tacugama.com/wp-content/uploads/2017/12/2010_Brncic_SLNCCP_Final_Report.pdf.

Brockelman, W. and Geissmann, T. (2019). Hoolock leuconedys. *The IUCN Red List of Threatened Species 2019: e.T118355453A17968300*. Gland, Switzerland: International Union for Conservation of Nature (IUCN). DOI: 10.2305/IUCN.UK.2019-1.RLTS.T118355453A17968300.en.

Brockelman, W., Molur, S. and Geissmann, T. (2019). Hoolock hoolock. *The IUCN Red List of Threatened Species 2019: e.T39876A17968083*. Gland, Switzerland: International Union for Conservation of Nature (IUCN). DOI: 10.2305/IUCN.UK.2019-3.RLTS.T39876A17968083.en.

Broom, D.M. (1991). Animal welfare: concepts and measurement. *Journal of Animal Science*, **69**(10), 4167–75. DOI: 10.2527/1991.69104167x.

Broom, D.M. (1999). Animal welfare: the concept of the issues. In *Attitudes to Animals: Views in Animal Welfare*, ed. F. L. Dolins. Cambridge, UK: Cambridge University Press, pp. 129–42. DOI: 10.1017/CBO9780511608476.009.

Brouwers, S. and Duchateau, M.J. (2021). Feasibility and validity of the animal welfare assessment grid to monitor the welfare of zoo-housed gorillas *Gorilla gorilla gorilla*. *Journal of Zoo and Aquarium Research*, **9**(4), 208–17. DOI: 10.19227/jzar.v9i4.607.

Brown, G.C. (2019). The endotoxin hypothesis of neurodegeneration. *Journal of Neuroinflammation*, **16**(1), 180. DOI: 10.1186/s12974-019-1564-7.

Brown, K.M. and Leggat, P.A. (2016). Human monkeypox: current state of knowledge and implications for the future. *Tropical Medicine and Infectious Disease*, **1**(1), 8.

Brown, S.L., Anderson, D.C., Dick Jr, E.J., *et al*. (2009). Neoplasia in the chimpanzee (*Pan* spp.). *Journal of Medical Primatology*, **38**(2), 137–44. DOI: 10.1111/j.1600-0684.2008.00321.x.

Brown, V. (2020). Federal government gives zoos $95 million coronavirus lifeline. *News.Com.AU*, April 28, 2020. Available at: https://www.news.com.au/travel/australian-holidays/federal-government-gives-zoos-95-million-coronavirus-lifeline/news-story/085e372f08a1c921b55e1c170f4ef8d1.

Browne, E., Driessen, M.M., Ross, R., Roach, M. and Carver, S. (2021). Environmental suitability of bare-nosed wombat burrows for *Sarcoptes scabiei*. *International Journal for Parasitology: Parasites and Wildlife*, **16**, 37–47. DOI: 10.1016/j.ijppaw.2021.08.003.

Browning, H. and Veit, W. (2021). Freedom and animal welfare. *Animals*, **11**(4), 1148. DOI: 10.3390/ani11041148.

Bruskotter, J.T., Vucetich, J.A., Dietsch, A., *et al*. (2019). Conservationists' moral obligations toward wildlife: values and identity promote conservation conflict. *Biological Conservation*, **240**, 108296. DOI: 10.1016/j.biocon.2019.108296.

Bruyere, B., Bynum, N., Copsey, J., Porzecanski, A. and Sterling, E. (2020). *Conservation Leadership Capacity Building: A Landscape Study*. New York, NY: American Museum of Natural History. Available at: https://www.amnh.org/research/center-for-biodiversity-conservation/resources-and-publications/conservation-action-and-planning/conservation-leadership-capacity-building-a-landscape-study.

Bryant, J.V., Olson, V.A., Chatterjee, H.J. and Turvey, S.T. (2015). Identifying environmental versus phylogenetic correlates of behavioural ecology in gibbons: implications for conservation management of the world's rarest ape. *BMC Evolutionary Biology*, **15**(1), 171. DOI: 10.1186/s12862-015-0430-1.

Bryant, J.V. and Turvey, S.T. (2017). *Emergency Response Plan for the Hainan Gibbon: Report and Recommendations of the Emergency Response Plan Advisory Meeting, Haikou, Hainan, China, 8–9 September, 2016*. London, UK: Zoological Society of London (ZSL). Available at: https://gibbons.asia/wp-content/uploads/2018/08/Hainan_Gibbon_Emergency_Response_Planning_Meeting_2016_Report-2.pdf.

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Bryant, T.L. (2006). Trauma, law and advocacy for animals. *Journal of Animal Law and Ethics*, **1**, 63–138.

Buckley, R.C., Morrison, C. and Castley, J.G. (2016). Net effects of ecotourism on threatened species survival. *PLoS ONE*, **11**(2), e0147988. DOI: 10.1371/journal.pone.0147988.

Buddle, B.M., Vordermeier, H.M., Chambers, M.A. and de Klerk-Lorist, L.-M. (2018). Efficacy and safety of BCG vaccine for control of tuberculosis in domestic livestock and wildlife. *Frontiers in Veterinary Science*, **5**, 259. DOI: 10.3389/fvets.2018.00259.

Bueno de Mesquita, C.P., Nichols, L.M., Gebert, M.J., *et al.* (2021). Structure of chimpanzee gut microbiomes across tropical Africa. *mSystems*, **6**(3), e01269-20. DOI: 10.1128/mSystems.01269-20.

Building Code & Bushfire Solutions (n.d.). *Asset Protection Zone Maintenance.* Mount Kuringai, Australia: Building Code & Bushfire Solutions. Available at: https://www.bushfirehazardsolutions.com.au/services/asset-protection-zone-maintenance/. Accessed: July, 2022.

Buitendijk, H., Fagrouch, Z.C., Niphuis, H., *et al.* (2014). Retrospective serology study of respiratory virus infections in captive great apes. *Viruses*, **6**(3), 1442–53.

Bull, J.W., Suttle, K.B., Gordon, A., Singh, N.J. and Milner-Gulland, E.J. (2013). Biodiversity offsets in theory and practice. *Oryx*, **47**(3), 369–80. DOI: 10.1017/S003060531200172X.

Buller, H., Blokhuis, H., Lokhorst, K., Silberberg, M. and Veissier, I. (2020). Animal welfare management in a digital world. *Animals*, **10**(10), 1779. DOI: 10.3390/ani10101779.

Bunge, E.M., Hoet, B., Chen, L., *et al.* (2022). The changing epidemiology of human monkeypox – a potential threat? A systematic review. *PLoS Neglected Tropical Diseases*, **16**(2), e0010141. DOI: 10.1371/journal.pntd.0010141.

Burt, E., Quinn, E., Quinn, R., Cranfield, M. and Sibbald, S.L. (2017). Case 3: providing continuing professional development in a developing country – the One Health initiative. In *Western Public Health Casebook 2017*, ed. A. John-Baptiste and G. McKinley. London, Canada: Public Health Casebook Publishing, pp. 43–54.

Buttke, D.E., Decker, D.J. and Wild, M.A. (2015). The role of one health in wildlife conservation: a challenge and opportunity. *Journal of Wildlife Diseases*, **51**(1), 1–8. DOI: 10.7589/2014-01-004.

Butynski, T.M. and Kalina, J. (1998). Gorilla tourism: a critical look. In *Conservation of Biological Resources*, ed. E. J. Milner-Gulland and R. Mace. Oxford, UK: Blackwell Science, pp. 294–313. DOI: 10.1002/9781444313598.ch12.

C2ES (2022). *Extreme Weather and Climate Change. Centre for Climate and Energy Solutions.* Arlington, VA: Centre for Climate and Energy Solutions (C2ES). Available at: https://www.c2es.org/content/extreme-weather-and-climate-change/.

Cabana, F., Jasmi, R.A. and Maguire, R. (2018). Great ape nutrition: low-sugar and high-fibre diets can lead to increased natural behaviours, decreased regurgitation and reingestion, and reversal of prediabetes. *International Zoo Yearbook*, **52**, 48–61.

Cabezas, S., Calvete, C. and Moreno, S. (2006). Vaccination success and body condition in the European wild rabbit: applications for conservation strategies. *Journal of Wildlife Management*, **70**(4), 1125–31, 7. DOI: 10.2193/0022-541X(2006)70[1125:VSABCI]2.0.CO;2.

Caillaud, D., Eckardt, W., Vecellio, V., *et al.* (2020). Violent encounters between social units hinder the growth of a high-density mountain gorilla population. *Science Advances*, **6**(45), eaba0724. DOI: 10.1126/sciadv.aba0724.

Caillaud, D., Levréro, F., Cristescu, R.H., *et al.* (2006). Gorilla susceptibility to Ebola virus: the cost of sociality. *Current Biology*, **16**, R489–91.

Caillaud, D., Ndagijimana, F., Giarrusso, A.J., Vecellio, V. and Stoinski, T.S. (2014). Mountain gorilla ranging patterns: influence of group size and group dynamics. *American Journal of Primatology*, **76**(8), 730–46. DOI: 10.1002/ajp.22265.

Calvignac-Spencer, S., Düx, A., Gogarten, J.F., Leendertz, F.H. and Patrono, L.V. (2021). A great ape perspective on the origins and evolution of human viruses. *Advances in Virus Research*, **110**, 1–26. DOI: 10.1016/bs.aivir.2021.06.001.

Calvignac-Spencer, S., Leendertz, S.A.J., Gillespie, T.R. and Leendertz, F.H. (2012). Wild great apes as sentinels and sources of infectious disease. *Clinical Microbiology and Infection*, **18**(6), 521–7. DOI: 10.1111/j.1469-0691.2012.03816.x.

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Cambre, R.C., Wilson, H.L., Spraker, T.R. and Favara, B.E. (1980). Fatal airsacculitis and pneumonia, with abortion, in an orangutan. *Journal of the American Veterinary Medical Association*, **177**(9), 822–4.

Cameron, K. and Reed, P. (2019). Ebola virus disease in great apes. In *Fowler's Zoo and Wild Animal Medicine Current Therapy, Volume 9*, ed. R. E. Miller, N. Lamberski and P. P. Calle. St Louis, MO: W.B. Saunders, pp. 233–8. DOI: 10.1016/B978-0-323-55228-8.00034-5.

Campbell, A.F. and Sussman, R.W. (1994). The value of radio tracking in the study of neotropical rain forest monkeys. *American Journal of Primatology*, **32**(4), 291–301. DOI: 10.1002/ajp.1350320406.

Campbell, C.O., Cheyne, S.M. and Rawson, B.M. (2015). *Best Practice Guidelines for the Rehabilitation and Translocation of Gibbons*. Gland, Switzerland: International Union for Conservation of Nature (IUCN) Species Survival Commission (SSC) Primate Specialist Group (PSG). Available at: https://portals.iucn.org/library/sites/library/files/documents/SSC-OP-051.pdf.

Campbell, G. (2021). Primate Specialist Group ARRC Task Force. *Oryx*, **55**(4), 495–6. DOI: 10.1017/S0030605321000533.

Campbell, T.P., Sun, X., Patel, V.H., *et al*. (2020). The microbiome and resistome of chimpanzees, gorillas, and humans across host lifestyle and geography. *The ISME Journal*, **14**(6), 1584–99. DOI: 10.1038/s41396-020-0634-2.

Campbell-Smith, G., Campbell-Smith, M., Singleton, I. and Linkie, M. (2011a). Apes in space: saving an imperilled orangutan population in Sumatra. *PLoS ONE*, **6**(2), e17210. DOI: 10.1371/journal.pone.0017210.

Campbell-Smith, G., Campbell-Smith, M., Singleton, I. and Linkie, M. (2011b). Raiders of the lost bark: orangutan foraging strategies in a degraded landscape. *PLoS ONE*, **6**(6), e20962. DOI: 10.1371/journal.pone.0020962.

Canfield, P.J., Vogelnest, L.J., Cunningham, M.L. and Visvesvara, G.S. (1997). Amoebic meningoencephalitis caused by *Balamuthia mandrillaris* in an orang utan. *Australian Veterinary Journal*, **75**(2), 97–100. DOI: 10.1111/j.1751-0813.1997.tb14165.x.

Cannon, J.C. (2017). Cross River superhighway changes course in Nigeria. *Mongabay*, April 28, 2017. Available at: https://news.mongabay.com/2017/04/cross-river-superhighway-changes-course-in-nigeria.

Capps, B. and Lederman, Z. (2015). One Health, vaccines and Ebola: the opportunities for shared benefits. *Journal of Agricultural and Environmental Ethics*, **28**(6), 1011–32. DOI: 10.1007/s10806-015-9574-7.

Capps, B. and Lederman, Z. (2016). Responding to a public health objection to vaccinating the great apes. *Journal of Agricultural and Environmental Ethics*, **29**(5), 883–95. DOI: 10.1007/s10806-016-9633-8.

Capua, I. and Cattoli, G. (2018). One Health (r)evolution: learning from the past to build a new future. *Viruses*, **10**(12), 725. DOI: 10.3390/v10120725.

Cardiff Metropolitan University (n.d.). *International Primate Heart Project*. Cardiff, UK: Cardiff Metropolitan University. Available at: http://primateheartproject.co.uk/. Accessed: January, 2022.

Carlitz, E.H.D., Miller, R., Kirschbaum, C., *et al*. (2016). Measuring hair cortisol concentrations to assess the effect of anthropogenic impacts on wild chimpanzees (*Pan troglodytes*). *PLoS ONE*, **11**(4), e0151870. DOI: 10.1371/journal.pone.0151870.

Carlsen, F., de Jongh, T. and Pluháčková, J. (2022). *EAZA Best Practice Guidelines Great Ape Taxon Advisory Group Chimpanzees (*Pan troglodytes*)*, 1st edn. Amsterdam, the Netherlands: European Association of Zoos and Aquaria (EAZA). Available at: https://www.eaza.net/assets/Uploads/CCC/BPG-2022/Chimpanzee-BPG22.pdf.

Carne, C., Semple, S., Morrogh-Bernard, H., Zuberbühler, K. and Lehmann, J. (2013). Predicting the vulnerability of great apes to disease: the role of superspreaders and their potential vaccination. *PLoS ONE*, **8**(12), e84642. DOI: 10.1371/journal.pone.0084642.

Carne, C., Semple, S., Morrogh-Bernard, H., Zuberbühler, K. and Lehmann, J. (2014). The risk of disease to great apes: simulating disease spread in orang-utan (*Pongo pygmaeus wurmbii*) and chimpanzee (*Pan troglodytes schweinfurthii*) association networks. *PLoS ONE*, **9**(4), e95039. DOI: 10.1371/journal.pone.0095039.

Carr, N. (2016). An analysis of zoo visitors' favourite and least favourite animals. *Tourism Management Perspectives*, **20**, 70–6. DOI: 10.1016/j.tmp.2016.07.006.

Carver, S., Peters, A. and Richards, S.A. (2022). Model integrated disease management to facilitate effective translatable solutions for wildlife disease issues. *Journal of Applied Ecology*, **59**(12), 2902–10. DOI: 10.1111/1365-2664.14298.

Cassella, C. (2019). Forest fires in Indonesia a decade ago may have stunted the growth of children today. *Science Alert*, February 22, 2019. Available at: https://www.sciencealert.com/past-forest-fires-in-indonesia-may-have-stunted-the-growth-of-children.

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Cavalieri, P. and Singer, P., ed. (1996). *The Great Ape Project: Equality Beyond Humanity*. New York, NY: Macmillan.

CBD (2020). *Ecosystem Approach*. Montreal, Canada: Convention on Biological Diversity (CBD). Available at: https://www.cbd.int/ecosystem/.

CDC (2017). *Hansen's Disease (Leprosy): Diagnosis and Treatment.* Atlanta, GA: Centers for Disease Control and Prevention (CDC). Available at: https://www.cdc.gov/leprosy/treatment/index.html#:~:text=Hansen's%20disease%20is%20treated%20with,This%20is%20called%20multidrug%20therapy.

CDC (2020a). *Anthrax: Treatment of Anthrax Infection.* Atlanta, GA: Centers for Disease Control and Prevention (CDC). Available at: https://www.cdc.gov/anthrax/treatment/index.html.

CDC (2020b). *Anthrax: Types of Anthrax.* Atlanta, GA: Centers for Disease Control and Prevention (CDC). Available at: https://www.cdc.gov/anthrax/basics/types/index.html.

CDC (2022). *Ebola (Ebola Virus Disease): History of Ebola Virus Disease (EVD) Outbreaks.* Atlanta, GA: Centers for Disease Control and Prevention (CDC). Available at: https://www.cdc.gov/vhf/ebola/history/chronology.html.

CDC (n.d.-a). *Key Achievements of the GHSA*. Atlanta, GA: Centers for Disease Control and Prevention (CDC). Available at: https://www.cdc.gov/globalhealth/resources/factsheets/5-years-of-ghsa.html. Accessed: October, 2022.

CDC (n.d.-b). *One Health Basics.* Atlanta, GA: Centers for Disease Control and Prevention (CDC). Available at: https://www.cdc.gov/onehealth/basics/index.html. Accessed: June, 2021.

Čejková, D., Zobaníková, M., Chen, L., *et al.* (2012). Whole genome sequences of three *Treponema pallidum* ssp. *pertenue* strains: yaws and syphilis treponemes differ in less than 0.2% of the genome sequence. *PLoS Neglected Tropical Diseases*, **6**(1), e1471. DOI: 10.1371/journal.pntd.0001471.

Celestino-Soper, P.B.S., Lynnes, T.C., Zhang, L., *et al.* (2018). Genetic analyses in a bonobo (*Pan paniscus*) with arrhythmogenic right ventricular cardiomyopathy. *Scientific Reports*, **8**, 4350. DOI: 10.1038/s41598-018-22334-5.

Center for Global Health (2016). *Implementing the Global Health Security Agenda: Progress and Impact from U.S. Government Investments.* Atlanta, GA: Centers for Disease Control and Prevention (CDC). Available at: https://stacks.cdc.gov/view/cdc/59125.

Centurión-Lara, A., Molini, B.J., Godornes, C., *et al.* (2006). Molecular differentiation of *Treponema pallidum* subspecies. *Journal of Clinical Microbiology*, **44**(9), 3377–80. DOI: 10.1128/JCM.00784-06.

Cerdán, P. and Kirk-Cohen, G., ed. (2020). *How to Reduce Single-Use Plastic at your Zoo or Aquarium*. Barcelona, Spain: World Association of Zoos and Aquariums (WAZA). Available at: https://www.waza.org/wp-content/uploads/2020/10/WAZA-short-guide-final-online.pdf.

Cerveny, S. and Sleeman, J. (2014). Great apes. In *Zoo Animal and Wildlife Immobilization and Anesthesia*, ed. G. West, D. Heard and N. Caulkett. Ames, IA: Wiley Blackwell, pp. 573–84. DOI: 10.1002/9781118792919.ch39.

Champion, J. (2013). *The effects of a hurricane and fire on feeding ecology, activity budget, and social patterns of spider monkeys (*Ateles geoffroyi*) in Central Belize.* Master's thesis. Calgary, Canada: University of Calgary. DOI: 10.11575/PRISM/28094.

Chan, B.P.L., Lo, Y.F.P., Hong, X.-J., Mak, C.F. and Ma, Z. (2020). First use of artificial canopy bridge by the world's most critically endangered primate the Hainan gibbon *Nomascus hainanus*. *Scientific Reports*, **10**, 15176. DOI: 10.1038/s41598-020-72641-z.

Chan, J.K.L., Marzuki, K.M. and Mohtar, T.M. (2021). Local community participation and responsible tourism practices in ecotourism destination: a case of Lower Kinabatangan, Sabah. *Sustainability*, **13**(23), 13302. DOI: 10.3390/su132313302.

Chancellor, R.L., Rundus, A.S. and Nyandwi, S. (2017). Chimpanzee seed dispersal in a montane forest fragment in Rwanda. *American Journal of Primatology*, **79**(3), e22624. DOI: 10.1002/ajp.22624.

Chappell, J.M. and Thorpe, S.K.S. (2021). *The Enclosure Design Tool: An Evidence-Based Framework for Improving Captive Ape Well-Being*. Unpublished data. Birmingham, UK: University of Birmingham.

Chappell, J.M. and Thorpe, S.K.S. (2022). The role of great ape behavioral ecology in One Health: implications for captive welfare and re-habilitation success. *American Journal of Primatology*, **84**(4–5), e23328. DOI: 10.1002/ajp.23328.

Charles-Dominique, P. (1977). Urine marking and territoriality in *Galago alleni* (Waterhouse, 1837 – Lorisoidea, Primates) – a field study by radio-telemetry. *Zeitschrift für Tierpsychologie*, **43**(2), 113–38. DOI: 10.1111/j.1439-0310.1977.tb00063.x.

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Chelluri, G.I., Ross, S.R. and Wagner, K.E. (2013). Behavioral correlates and welfare implications of informal interactions between caretakers and zoo-housed chimpanzees and gorillas. *Applied Animal Behaviour Science*, **147**(3), 306–15. DOI: 10.1016/j.applanim.2012.06.008.

Cheng, A.C. and Currie, B.J. (2005). Melioidosis: epidemiology, pathophysiology, and management. *Clinical Microbiology Reviews*, **18**(2), 383–416. DOI: 10.1128/CMR.18.2.383-416.2005.

Cheptoris, S. (2020). *Statement on the Rising Water Levels of Lake Victoria and the Nile System.* Kampala, Uganda: Uganda Media Centre. Available at: https://www.mediacentre.go.ug/media/statement-rising-water-levels-lake-victoria-and-nile-system.

Chester Zoo (2021). *Chester Zoo Risk Assessment COVID-19 (Coronavirus).* Chester, UK Chester Zoo. Available at: https://cdn.chesterzoo.org/2021/04/COVID-19-RISK-ASSESSMENT-CHESTER-ZOO-2021.pdf.

Cheyne, S.M. (2008a). Effects of meteorology, astronomical variables, location and human disturbance on the singing apes: *Hylobates albibarbis*. *American Journal of Primatology*, **70**(4), 386–92. DOI: 10.1002/ajp.20502.

Cheyne, S.M. (2008b). Feeding ecology, food choice and diet characteristics of gibbons in a disturbed peat-swamp forest, Indonesia. In *XXII Congress of the International Primatological Society*, ed. P. C. Lee, P. Honess, H. Buchanan-Smith, A. MaClarnon and W. I. Sellers. Edinburgh, UK, pp. 3–8.

Cheyne, S.M. (2010). Behavioural ecology of gibbons (*Hylobates albibarbis*) in a degraded peat-swamp forest. In *Indonesian Primates*, ed. S. Gursky and J. Supriatna. New York, NY: Springer, pp. 121–56. DOI: 10.1007/978-1-4419-1560-3_8.

Cheyne, S.M., Campbell, C.O. and Payne, K.L. (2012). Proposed guidelines for in situ gibbon rescue, rehabilitation and reintroduction. *International Zoo Yearbook*, **46**(1). DOI: 10.1111/j.1748-1090.2011.00149.x.

Cheyne, S.M., Gilhooly, L.J., Hamard, M.C., *et al.* (2016). Population mapping of gibbons in Kalimantan, Indonesia: correlates of gibbon density and vegetation across the species' range. *Endangered Species Research*, **30**(1), 133–43. DOI: 10.3354/esr00734.

Chi, F., Leider, M., Leendertz, F.H., *et al.* (2007). New *Streptococcus pneumoniae* clones in deceased wild chimpanzees. *Journal of Bacteriology*, **189**(16), 6085–8. DOI: 10.1128/JB.00468-07.

Chimfunshi Wildlife Orphanage (n.d.). *Chimfunshi.* Chingola, Zambia: Chimfunshi Wildlife Orphanage Trust. Available at: https://www.chimfunshi.de/en. Accessed: October, 2020.

Chimp Eden (n.d.). *Chimp Guardianship Programme.* Mpumalanga, South Africa: Chimp Eden, Jane Goodall Institute South Africa. Available at: https://www.chimpeden.com/adoptions.html. Accessed: October, 2020.

Chimpanzee Conservation Center (2020). *Annual Report 2019.* High Niger National Park, Guinea: Project Primates. Available at: https://www.projetprimates.com/wp-content/uploads/CCC-2019-Annual-Report.pdf.

ChimpCARE (n.d.-a). *Chimpanzees in the US.* Chicago, IL: Lincoln Park Zoo. Available at: http://www.chimpcare.org/map. Accessed: October, 2020.

ChimpCARE (n.d.-b). *Welfare Assessment.* Chicago, IL: ChimpCARE. Available at: https://chimpcare.org/welfare_assessment. Accessed: May, 2022.

Chivers, D.J. (1974). *The Siamang in Malaya: A Field Study of a Primate in Tropical Rainforest.* Contributions to Primatology 4. Basel, Switzerland: Karger.

Chok, S., Macbeth, J. and Warren, C. (2007). Tourism as a tool for poverty alleviation: a critical analysis of "pro-poor tourism" and implications for sustainability. *Current Issues in Tourism*, **10**(2–3), 144–65. DOI: 10.2167/cit303.

Chomel, B.B., Belotto, A. and Meslin, F.-X. (2007). Wildlife, exotic pets, and emerging zoonoses. *Emerging Infectious Diseases*, **13**(1), 6. DOI: 10.3201/eid1301.060480.

Choo, Y. (2011). *Orangutan behaviour in captivity: activity budgets, enclosure use and the visitor effect.* MSc thesis. Singapore: National University of Singapore.

Choo, Y., Todd, P.A. and Li, D. (2011). Visitor effects on zoo orangutans in two novel, naturalistic enclosures. *Applied Animal Behaviour Science*, **133**(1), 78–86. DOI: 10.1016/j.applanim.2011.05.007.

Choudhury, A. (2013). Description of a new subspecies of hoolock gibbon *Hoolock hoolock* from northeast India. *Newsletter and Journal of the Rhino Foundation for Nature in Northeast India*, **9**, 49–59.

Christmann, P., Ayuk, E.T., Pedro, A.M.A. and Kumar, S.V. (2022). Future mineral demand: the necessary transition toward sustainability. In *Routledge Handbook of the Extractive Industries and Sustainable Development*, ed. N. Yakovleva and E. Nickless. London, UK: Routledge, pp. 101–32.

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Chua, L., Fair, H., Schreer, V., Stępień, A. and Thung, P.H. (2021). Only the orangutans get a life jacket. *American Ethnologist*, **48**(4), 370–85. DOI: 10.1111/amet.13045.

Chua, L., Harrison, M.E., Fair, H., *et al.* (2020). Conservation and the social sciences: beyond critique and co-optation. A case study from orangutan conservation. *People and Nature*, **2**(1), 42–60. DOI: 10.1002/pan3.10072.

Chuma, I.S., Batamuzi, E.K., Collins, D.A., *et al.* (2018). Widespread *Treponema pallidum* infection in nonhuman primates, Tanzania. *Emerging Infectious Diseases*, **24**(6), 1002–9. DOI: 10.3201/eid2406.180037.

Chuma, I.S., Roos, C., Atickem, A., *et al.* (2019). Strain diversity of *Treponema pallidum* subsp. *pertenue* suggests rare interspecies transmission in African nonhuman primates. *Scientific Reports*, **9**, 14243. DOI: 10.1038/s41598-019-50779-9.

Chumo, C. (2021). *ANAW and WFA Lead Global Initiative for Adoption of UN Animal Welfare Resolution.* Boston, MA: World Federation for Animals (WFA). Available at: https://wfa.org/wfa-anaw-resolution/.

Cibot, M., Krief, S., Philippon, J., *et al.* (2016). Feeding consequences of hand and foot disability in wild adult chimpanzees (*Pan troglodytes schweinfurthii*). *International Journal of Primatology*, **37**(4–5), 479–94. DOI: 10.1007/s10764-016-9914-0.

Cipolletta, C. (2003). Ranging patterns of a western gorilla group during habituation to humans in the Dzanga-Ndoki National Park, Central African Republic. *International Journal of Primatology*, **24**(6), 1207–26. DOI: 10.1023/B:IJOP.0000005988.52177.45.

CITES (2016). *Resolution Conf 17.8 Disposal of Illegally Traded and Confiscated Specimens of CITES-Listed Species.* Geneva, Switzerland: Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Available at: https://www.cites.org/sites/default/files/document/E-Res-17-08.pdf.

CITES (n.d.). *CITES Trade Database.* Cambridge, UK: United Nations Environment Programme (UNEP) World Conservation Monitoring Centre (WCMC). Available at: https://trade.cites.org/. Accessed: December, 2020.

CITES Secretariat (2017). *SC69 Doc. 34.1 Sixty-ninth Meeting of the Standing Committee Geneva (Switzerland), 27 November–1 December 2017. Interpretation and Implementation Matters. General Compliance and Enforcement. Disposal of Confiscated Specimens. Report of the Secretariat.* Geneva, Switzerland: Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Available at: https://stag.cites.org/sites/default/files/eng/com/sc/69/E-SC69-34-01.pdf.

CITES Secretariat (2021). *Revised Draft (2021) Model Law on International Trade in Wild Fauna and Flora.* Geneva, Switzerland: Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Available at: https://cites.org/sites/default/files/projects/NLP/E-Model_law-revised_Oct.2021.FINAL.DRAFT.pdf.

Clark, F.E., Fitzpatrick, M., Hartley, A., *et al.* (2012). Relationship between behavior, adrenal activity, and environment in zoo-housed western lowland gorillas (*Gorilla gorilla gorilla*). *Zoo Biology*, **31**(3), 306–21. DOI: 10.1002/zoo.20396.

Clarke, E., Reichard, U.H. and Zuberbühler, K. (2006). The syntax and meaning of wild gibbon songs. *PLoS ONE*, **1**(1), e73. DOI: 10.1371/journal.pone.0000073.

Clayton, J.B., Gomez, A., Amato, K., *et al.* (2018). The gut microbiome of nonhuman primates: lessons in ecology and evolution. *American Journal of Primatology*, **80**(6), e22867. DOI: 10.1002/ajp.22867.

Clayton, J.B., Vangay, P., Huang, H., *et al.* (2016). Captivity humanizes the primate microbiome. *Proceedings of the National Academy of Sciences*, **113**(37), 10376–81. DOI: 10.1073/pnas.1521835113.

Clegg, I. (2021). *How to Take Your Welfare Program to the Next Level: The C-Well Dolphin Assessment as an Example of a Species-Specific Tool, and AnimalCare Software's Cloud-Based Welfare Platform. EAZA Animal Welfare Webinar 1 March 2021.* Amsterdam, the Netherlands: European Association of Zoos and Aquaria (EAZA). Available at: https://www.eaza.net/about-us/areas-of-activity/animal-welfare/animal-welfare-webinars/.

Clegg, I.L.K., Borger-Turner, J.L. and Eskelinen, H.C. (2015). C-Well: the development of a welfare assessment index for captive bottlenose dolphins (*Tursiops truncatus*). *Animal Welfare*, **24**(3), 267–82. DOI: 10.7120/09627286.24.3.267.

Clifford, D.H., Yoo, S.Y., Fazekas, S. and Hardin, C.J. (1977). Surgical drainage of a submandibular air sac in an orangutan. *Journal of the American Veterinary Medical Association*, **171**(9), 862–5.

Clifford, W. and Steedman, C. (2021). Wildlife–pet markets in a One-Health context. *International Journal of One Health*, **7**(1), 42–64. DOI: 10.14202/IJOH.2021.42-64.

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Clink, D.J., Crofoot, M.C. and Marshall, A.J. (2019). Application of a semi-automated vocal fingerprinting approach to monitor Bornean gibbon females in an experimentally fragmented landscape in Sabah, Malaysia. *Bioacoustics*, **28**(3), 193–209. DOI: 10.1080/09524622.2018.1426042.

Cliquet, F., Müller, T., Mutinelli, F., *et al.* (2003). Standardisation and establishment of a rabies ELISA test in European laboratories for assessing the efficacy of oral fox vaccination campaigns. *Vaccine*, **21**(21), 2986–93. DOI: 10.1016/S0264-410X(03)00102-6.

Cochrane, A. (2012). *Animal Rights Without Liberation Applied Ethics and Human Obligations.* New York, NY: Columbia University Press.

Coe, J. and Hoy, J. (2020). Choice, control and computers: empowering wildlife in human care. *Multimodal Technologies and Interaction*, **4**(4), 92. DOI: 10.3390/mti4040092.

Cohen, J. (2010). Chimpanzee research today. A matter of life and limb. *Science*, **328**(5974), 33. DOI: 10.1126/science.328.5974.33.

Cohen, S.E. (2013). Sandy marked a shift for social media use in disasters. *Government Technology*, March 7, 2013. Available at: https://www.govtech.com/em/disaster/Sandy-Social-Media-Use-in-Disasters.html.

Colditz, I.G. and Hine, B.C. (2016). Resilience in farm animals: biology, management, breeding and implications for animal welfare. *Animal Production Science*, **56**(12), 1961–83. DOI: 10.1071/AN15297.

Collins, A. (2003). Health guidelines for visiting researchers in Gombe National Park to minimize risk of disease transmission among primates (updated 8/01/03). *Pan Africa News*, **10**(1), 1–3.

Collins, A. and Goodall, J. (2008). Long-term research and conservation in Gombe National Park, Tanzania. In *Science and Conservation in African Forests: The Benefits of Longterm Research*, ed. E. Ross and R. Wrangham. Cambridge, UK: Cambridge University Press, pp. 158–72. DOI: 10.1017/CBO9780511754920.016.

Conover, M.R. and Conover, D.O. (2022). *Human–Wildlife Interactions: From Conflict to Coexistence*, 2nd edn. Boca Raton, FL: CRC Press. DOI: 10.1201/9780429401404.

Conservation Evidence (n.d.). *Conservation Evidence: Providing Evidence to Improve Practice.* Cambridge, UK: University of Cambridge. Available at: https://www.conservationevidence.com/data/index?terms=prism. Accessed: May, 2019.

Cooke, S.J., Madliger, C.L., Cramp, R.L., *et al.* (2020). Reframing conservation physiology to be more inclusive, integrative, relevant and forward-looking: reflections and a horizon scan. *Conservation Physiology*, **8**(1), coaa016. DOI: 10.1093/conphys/coaa016.

Cooper, J.E. and Hull, G., ed. (2017). *Gorilla Pathology and Health: With a Catalogue of Preserved Materials*. San Diego, CA: Academic Press. DOI: 10.1016/B978-0-12-802039-5.00021-4.

Cooper, K. (2018). What does a good response to an emergency wildlife disease look like? Presented at: *WDA-A Annual Conference, Bali, Indonesia*. Wildlife Disease Association Australasia Section (WDA-A) in association with the Asian Society of Conservation Medicine.

Corbey, R. (2005). *The Metaphysics of Apes: Negotiating the Animal–Human Boundary.* New York, NY: Cambridge University Press.

Corlett, R.T., Primack, R.B., Devictor, V., *et al.* (2020). Impacts of the coronavirus pandemic on biodiversity conservation. *Biological Conservation*, **246**, 108571. DOI: 10.1016/j.biocon.2020.108571.

Corrigan, A. (2010). *An Investigation into the Welfare Standards of Zoos in Malaysia.* Singapore: Animal Concerns Research and Education Society (ACRES). Available at: http://www.zoocheck.com/wp-content/uploads/2015/06/MalaysiaZooReport2010.pdf.

Coscollá, M., Lewin, A., Metzger, S., *et al.* (2013). Novel *Mycobacterium tuberculosis* complex isolate from a wild chimpanzee. *Emerging Infectious Diseases*, **19**(6), 969–76.

Coudrat, C.N.Z., Nanthavong, C., Ngoprasert, D., Suwanwaree, P. and Savini, T. (2015). Singing patterns of white-cheeked gibbons (*Nomascus* sp.) in the Annamite Mountains of Laos. *International Journal of Primatology*, **36**(4), 691–706. DOI: 10.1007/s10764-015-9849-x.

Cox, C., Burgess, S., Sellitto, C. and Buultjens, J. (2009). The role of user-generated content in tourists' travel planning behavior. *Journal of Hospitality Marketing & Management*, **18**(8), 743–64. DOI: 10.1080/19368620903235753.

Cox, J. and Lennkh, S. (2016). *Model Animal Welfare Act – A Comprehensive Framework Law.* Boston, MA: World Animal Net. Available at: http://worldanimal.net/images/stories/documents/Model_AWA/WAN-Model-Animal-Welfare-Act.pdf.

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Cozannet, G.L. (2007). *IGOS Geohazards: Toward an Improved use of Earth Observations for Geohazards Mitigation.* Scientific and Technical Subcommittee Session. Vienna, Austria: United Nations Office for Outer Space Affairs (UNOOSA) Available at: https://www.unoosa.org/pdf/pres/stsc2007/tech-12.pdf.

Cranfield, M.R. and Minnis, R.B. (2007). An integrated health approach to the conservation of mountain gorillas *Gorilla beringei beringei*. *International Zoo Yearbook*, **41**, 110–21.

Crissey, S., Pribyl, L., Pruett-Jones, M. and Meehan, T. (1998). Nutritional management of Old World primates with special consideration for vitamin D. *International Zoo Yearbook*, **36**(1), 122–30. DOI: 10.1111/j.1748-1090.1998.tb02894.x.

Crockett, C.M. and Ha, R.R. (2010). Data collection in the zoo setting, emphasizing behavior. In *Wild Mammals in Captivity: Principles and Techniques*, ed. D. G. Kleiman, K. V. Thompson and C. K. Baer. Chicago, IL: University of Chicago Press, pp. 386–406.

Crunchant, A.-S., Egerer, M., Loos, A., *et al.* (2017). Automated face detection for occurrence and occupancy estimation in chimpanzees. *American Journal of Primatology*, **79**(3), e22627. DOI: 10.1002/ajp.22627.

Crutzen, P.J. (2006). The "Anthropocene". In *Earth System Science in the Anthropocene*, ed. E. Ehlers and T. Krafft. Berlin, Heidelberg, Germany: Springer, pp. 13–18. DOI: 10.1007/3-540-26590-2_3.

CSBI and TBC (2015). *A Cross-Sector Guide to Implementing the Mitigation Hierarchy.* Cambridge, UK: Cross-Sector Biodiversity Initiative (CSBI). Available at: http://www.csbi.org.uk/our-work/mitigation-hierarchy-guide/.

CTPH (n.d.-a). *Alternative Livelihoods.* Entebbe, Uganda: Conservation Through Public Health (CTPH). Available at: https://ctph.org/alternative-livelihoods-program/. Accessed: August, 2022.

CTPH (n.d.-b). *Bwindi Impenetrable National Park.* Entebbe, Uganda: Conservation Through Public Health (CTPH). Available at: https://ctph.org/conservation-locations/. Accessed: August, 2022.

CTPH (n.d.-c). *Conservation Through Public Health.* Entebbe, Uganda: Conservation through Public Health (CTPH). Available at: https://ctph.org/. Accessed: August, 2022.

CTPH (n.d.-d). *One Health.* Entebbe, Uganda: Conservation Through Public Health (CTPH). Available at: https://ctph.org/one-health-program/. Accessed: August, 2022.

Cunningham, E.P., Unwin, S. and Setchell, J.M. (2015). Darting primates in the field: a review of reporting trends and a survey of practices and their effect on the primates involved. *International Journal of Primatology*, **36**(5), 911–32. DOI: 10.1007/s10764-015-9862-0.

Curry, B.A., Drane, A.L., Atencia, R., *et al.* (2023). Body mass and growth rates in captive chimpanzees (*Pan troglodytes*) cared for in African wildlife sanctuaries, zoological institutions, and research facilities. *Zoo Biology*, **42**(1), 98–106. DOI: 10.1002/zoo.21718.

Cusick, D. (2019). Some disaster prevention spending reaps higher rewards. *Scientific American*, June 24, 2019. Available at: https://www.scientificamerican.com/article/some-disaster-prevention-spending-reaps-higher-rewards/.

CZS (n.d.). *Animal Welfare Research: WelfareTrak®.* Chicago, IL: Chicago Zoological Society (CZS). Available at: https://welfaretrak.org/. Accessed: May, 2022.

D'arc, M., Ayouba, A., Esteban, A., *et al.* (2015). Origin of the HIV-1 group O epidemic in western lowland gorillas. *Proceedings of the National Academy of Sciences*, **112**(11), E1343–52.

D'Cruze, N., Green, J., Elwin, A. and Schmidt-Burbach, J. (2020). Trading tactics: time to rethink the global trade in wildlife. *Animals*, **10**(12), 2456. DOI: 10.3390/ani10122456.

D'Cruze, N. and Macdonald, D.W. (2016). A review of global trends in CITES live wildlife confiscations. *Nature Conservation*, **15**. DOI: 10.3897/natureconservation.15.10005.

Daddoust, L., Asgary, A., McBey, K.J., Elliott, S. and Normand, A. (2021). Spontaneous volunteer coordination during disasters and emergencies: opportunities, challenges, and risks. *International Journal of Disaster Risk Reduction*, **65**, 102546. DOI: 10.1016/j.ijdrr.2021.102546.

Dalkey, N. and Helmer, O. (1963). An experimental application of the Delphi method to the use of experts. *Management Science*, **9**(3), 458–67.

Dalton, J. (2020). Coronavirus: sharp rise in poaching of Africa's mountain gorillas as people hunt more bushmeat. *Independent*, July 20, 2020. Available at: https://www.independent.co.uk/independentpremium/world/poaching-gorillas-africa-congo-uganda-bushmeat-coronavirus-apes-a9628501.html.

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Dampage, U., Bandaranayake, L., Wanasinghe, R., Kottahachchi, K. and Jayasanka, B. (2022). Forest fire detection system using wireless sensor networks and machine learning. *Scientific Reports*, **12**, 46. DOI: 10.1038/s41598-021-03882-9.

Das, J., Biswas, J., Bhattacherjee, P.C. and Rao, S.S. (2009). Canopy bridges: an effective conservation tactic for supporting gibbon populations in forest fragments. In *The Gibbons: New Perspectives on Small Ape Socioecology and Population Biology*, ed. D. Whittaker and S. Lappan. New York, NY: Springer, pp. 467–75. DOI: 10.1007/978-0-387-88604-6_22.

Daszak, P., Cunningham, A.A. and Hyatt, A.D. (2000). Emerging Infectious Diseases of wildlife – threats to biodiversity and human health. *Science*, **287**(5452), 443–9. DOI: 10.1126/science.287.5452.443.

Daszak, P., Cunningham, A.A. and Hyatt, A.D. (2001). Anthropogenic environmental change and the emergence of infectious diseases in wildlife. *Acta Tropica*, **78**(2), 103–16. DOI: 10.1016/S0001-706X(00)00179-0.

Daud, Z. (2019). Sepilok centre must heed the rules. *New Straits Times*, December 7, 2019. Available at: https://www.nst.com.my/opinion/letters/2019/12/545536/sepilok-centre-must-heed-rules.

Davis, J.T., Mengersen, K., Abram, N.K., *et al.* (2013). It's not just conflict that motivates killing of orangutans. *PLoS ONE*, **8**(10), e75373. DOI: 10.1371/journal.pone.0075373.

Dawson, C.P. (2008). Ecotourism and nature-based tourism: one end of the tourism opportunity spectrum? In *Tourism, Recreation and Sustainability: Linking Culture and the Environment*, 2nd edn, ed. S. F. McCool and R. N. Moisey. Wallingford, UK: CABI International, pp. 38–50. DOI: 10.1079/9781845934705.0038.

de Haas, A. (2020). Transmission of diseases from humans to apes: why extra vigilance is now needed. *The Conversation*, March 24, 2020. Available at: https://theconversation.com/transmission-of-diseases-from-humans-to-apes-why-extra-vigilance-is-now-needed-134083.

De Santis, O., Audran, R., Pothin, E., *et al.* (2016). Safety and immunogenicity of a chimpanzee adenovirus-vectored Ebola vaccine in healthy adults: a randomised, double-blind, placebo-controlled, dose-finding, phase 1/2a study. *The Lancet Infectious Diseases*, **16**(3), 311–20. DOI: 10.1016/s1473-3099(15)00486-7.

de Silva, G.C., Regan, E.C., Pollard, E.H.B. and Addison, P.F.E. (2019). The evolution of corporate no net loss and net positive impact biodiversity commitments: understanding appetite and addressing challenges. *Business Strategy and the Environment*, **28**(7), 1481–95. DOI: 10.1002/bse.2379.

Decision Tree Writing Group (2006). Clinical response decision tree for the mountain gorilla (*Gorilla beringeii*) as a model for great apes. *American Journal of Primatology*, **68**(9), 909–27. DOI: 10.1002/ajp.20297.

Deem, S.L. (2007). Role of the zoo veterinarian in the conservation of captive and free-ranging wildlife. *International Zoo Yearbook*, **41**(1), 3–11. DOI: 10.1111/j.1748-1090.2007.00020.x.

Deem, S.L. (2016). Conservation medicine: a solution-based approach for saving nonhuman primates. In *Ethnoprimatology: Primate Conservation in the 21st Century*, ed. M. T. Waller. Cham, Switzerland: Springer, pp. 63–76. DOI: 10.1007/978-3-319-30469-4_4.

Deere, J.R., Parsons, M.B., Lonsdorf, E.V., *et al.* (2019). *Entamoeba histolytica* infection in humans, chimpanzees and baboons in the Greater Gombe Ecosystem, Tanzania. *Parasitology*, **146**(9), 1116–22. DOI: 10.1017/S0031182018001397.

DeGrazia, D. (2016). Nonhuman primates, human need, and ethical constraints. *Hastings Center Report*, **46**(4), 27–8. DOI: 10.1002/hast.601.

Deiner, K., Bik, H.M., Mächler, E., *et al.* (2017). Environmental DNA metabarcoding: transforming how we survey animal and plant communities. *Molecular Ecology*, **26**(21), 5872–95. DOI: 10.1111/mec.14350.

Delgado, R.A. (2010). Communication, culture and conservation in orangutans. In *Indonesian Primates*, ed. S. Gursky and J. Supriatna. New York, NY: Springer, pp. 23–40. DOI: 10.1007/978-1-4419-1560-3_3.

Delgado, R.A. and van Schaik, C.P. (2000). The behavioral ecology and conservation of the orangutan *(Pongo pygmaeus)*: a tale of two islands. *Evolutionary Anthropology: Issues, News, and Reviews*, **9**(5), 201–18. DOI: 10.1002/1520-6505(2000)9:5<201::AID-EVAN2>3.0.CO;2-Y.

Dellatore, D.F., Waitt, C.D. and Foitovà, I. (2014). The impact of tourism on the behavior of rehabilitated orangutans (*Pongo abelii*) in Bukit Lawang, North Sumatra, Indonesia. In *Primate Tourism: A Tool for Conservation?*, ed. A. E. Russon and J. Wallis. Cambridge, UK: Cambridge University Press, pp. 98–120. DOI: 10.1017/CBO9781139087407.008.

Demetria, C., Smith, I., Tan, T., *et al.* (2018). Reemergence of Reston Ebola virus in cynomolgus monkeys, the Philippines, 2015. *Emerging Infectious Diseases*, **24**(7), 1285–91. DOI: 10.3201/eid2407.171234.

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Dench, R., Sulistyo, F., Fahroni, A. and Philippa, J. (2015). Evaluation of diagnostic accuracy of the comparative tuberculin skin test in rehabilitant Bornean orangutans (*Pongo pygmaeus*). *Journal of Zoo and Wildlife Medicine*, **46**(4), 833–42. DOI: 10.1638/2014-0220.1.

Dennis, R. (1999). *A Review of Fire Projects in Indonesia (1982–1998).* Bogor, Indonesia: Center for International Forestry Research (CIFOR). Available at: https://www.cifor.org/publications/pdf_files/firereport.pdf.

DePaoli, A. and Johnsen, D.O. (1978). Fatal strongyloidiasis in gibbons (*Hylobates lar*). *Veterinary Pathology*, **15**(1), 31–9. DOI: 10.1177/030098587801500104.

Desmond, J.S. and Desmond, J.A.Z. (2014). Evaluating the effectiveness of chimpanzee tourism. In *Primate Tourism: A Tool for Conservation?*, ed. A. E. Russon and J. Wallis. Cambridge, UK: Cambridge University Press, pp. 199–212. DOI: 10.1017/CBO9781139087407.014.

Detroit Zoological Society (n.d.). *The Great Ape Heart Project.* Royal Oak, MI: Detroit Zoological Society. Available at: https://greatapeheartproject.org/. Accessed: January, 2022.

Devaux, C.A., Mediannikov, O., Medkour, H. and Raoult, D. (2019). Infectious disease risk across the growing human–non human primate interface: a review of the evidence. *Frontiers in Public Health*, **7**, 305. DOI: 10.3389/fpubh.2019.00305.

DHS (2019). *Guidelines for Managing Spontaneous Volunteers in South Australia.* Adelaide, Australia: Department of Human Services (DHS), Government of South Australia. Available at: https://naturaldisaster.royalcommission.gov.au/system/files/2020-07/SSA.468.001.0257.pdf.

Di Giulio, D.B. and Eckburg, P.B. (2004). Human monkeypox: an emerging zoonosis. *The Lancet Infectious Diseases*, **4**(1), 15–25. DOI: 10.1016/s1473-3099(03)00856-9.

Dickman, A.J. and Hazzah, L. (2016). Money, myths and man-eaters: complexities of human–wildlife conflict. In *Problematic Wildlife: A Cross-Disciplinary Approach*, ed. F. M. Angelici. Cham, Switzerland: Springer International Publishing, pp. 339–56. DOI: 10.1007/978-3-319-22246-2_16.

Digun-Aweto, O. (2020). Taking a cue from Rwanda; replicating gorilla tourism in Nigeria. *AfricaGrowth Agenda*, **17**(2), 10–11. DOI: 10.10520/EJC-1f024f79ad.

Dinsi, S.C. and Eyebe, S.A. (2016). *Great Ape Conservation in Cameroon: Mapping Institution and Policies. Poverty and Conservation Learning Group (PCLG) Research Report.* London, UK: International Institute for Environment and Development (IIED). Available at: http://pubs.iied.org/pdfs/G04017.pdf.

Doane, C.J., Lee, D.R. and Sleeper, M.M. (2006). Electrocardiogram abnormalities in captive chimpanzees (*Pan troglodytes*). *Comparative Medicine*, **56**(6), 512–18.

Dobson, A.P., Pimm, S.L., Hannah, L., *et al.* (2020). Ecology and economics for pandemic prevention. *Science*, **369**(6502), 379–81. DOI: 10.1126/science.abc3189.

Doran-Sheehy, D., Derby, A., Greer, D. and Mongo, P. (2007). Habituation of western gorillas: the process and factors that influence it. *American Journal of Primatology*, **69**, 1–16. DOI: 10.1002/ajp.20442.

Doran-Sheehy, D., Mongo, P., Lodwick, J. and Conklin-Brittain, N.L. (2009). Male and female western gorilla diet: preferred foods, use of fallback resources, and implications for ape versus old world monkey foraging strategies. *American Journal of Physical Anthropology*, **140**(4), 727–38. DOI: 10.1002/ajpa.21118.

Dore, K.M., Hansen, M.F., Klegarth, A.R., *et al.* (2020). Review of GPS collar deployments and performance on nonhuman primates. *Primates*, **61**(3), 373–87. DOI: 10.1007/s10329-020-00793-7.

Dore, K.M., Riley, E.P. and Fuentes, A. (2017). *Ethnoprimatology: A Practical Guide to Research at the Human–Nonhuman Primate Interface.* Cambridge, UK: Cambridge University Press. DOI: 10.1017/9781316272466.

Doyle, C. (2017). Captive wildlife sanctuaries: definition, ethical considerations and public perception. *Animal Studies Journal*, **6**(2), 55–85. DOI: https://ro.uow.edu.au/asj/vol6/iss2/5.

Drane, A.L., Atencia, R., Cooper, S.-M., *et al.* (2019). Cardiac structure and function characterized across age groups and between sexes in healthy wild-born captive chimpanzees (*Pan troglodytes*) living in sanctuaries. *American Journal of Veterinary Research*, **80**(6), 547–57. DOI: 10.2460/ajvr.80.6.547.

Drane, A.L., Atencia, R., Cooper, S.-M., *et al.* (2020). Evaluation of relationships between results of electrocardiography and echocardiography in 341 chimpanzees (*Pan troglodytes*). *American Journal of Veterinary Research*, **81**(6), 488–98. DOI: 10.2460/ajvr.81.6.488.

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Draper, C., Baker, L. and Ramp, D. (2015). Poster: Why compassionate conservation can improve the welfare of wild animals. Presented at: *Animal Populations – World Resources and Animal Welfare, UFAW International Animal Welfare Science Symposium, 14–15th July 2015, Zagreb, Croatia*. Wheathampstead, UK: Universities Federation for Animal Welfare (UFAW), p. 51.

Draper, C. and Harris, S. (2012). The assessment of animal welfare in British zoos by government-appointed inspectors. *Animals*, **2**(4), 507–28. DOI: 10.3390/ani2040507.

Drews, B., Harmann, L.M., Beehler, L.L., *et al*. (2011). Ultrasonographic monitoring of fetal development in unrestrained bonobos (*Pan paniscus*) at the Milwaukee County Zoo. *Zoo Biology*, **30**(3), 241–53. DOI: 10.1002/zoo.20304.

Dunay, E., Apakupakul, K., Leard, S., Palmer, J.L. and Deem, S.L. (2018). Pathogen transmission from humans to great apes is a growing threat to primate conservation. *EcoHealth*, **15**(1), 148–62. DOI: 10.1007/s10393-017-1306-1.

Dunkley, J. and Whelan, T.A. (2006). Vicarious traumatisation: current status and future directions. *British Journal of Guidance & Counselling*, **34**(1), 107–16. DOI: 10.1080/03069880500483166.

Dunlop, A.L., Logue, K.M., Vaidyanathan, L. and Isakov, A.P. (2016). Facilitators and barriers for effective academic–community collaboration for disaster preparedness and response. *Journal of Public Health Management and Practice*, **22**(3), E20–28.

Dunn, A., Bergl, R., Byler, D., *et al*. (2014). *Revised Regional Action Plan for the Conservation of the Cross River Gorilla (*Gorilla gorilla diehli*) 2014–2019*. New York, NY: International Union for Conservation of Nature (IUCN) Species Survival Commission (SSC) Primate Specialist Group (PSG) and Wildlife Conservation Society (WCS). Available at: https://portals.iucn.org/library/node/44661.

Durham, D. (2015). The status of captive apes. In *State of the Apes: Industrial Agriculture and Ape Conservation*, ed. Arcus Foundation. Cambridge, UK: Cambridge University Press, pp. 228–59. Available at: http://www.stateoftheapes.com/themes/the-status-of-captive-apes/.

Durham, D. (2018). The status of captive apes: a statistical update. In *State of the Apes: Infrastructure Development and Ape Conservation*, ed. Arcus Foundation. Cambridge, UK: Cambridge University Press, pp. 255–63. Available at: https://www.stateoftheapes.com/volume-3-infrastructure-development/.

Durham, D. (2020). The status of captive apes: a statistical update. In *State of the Apes: Killing, Capture, Trade and Conservation*, ed. Arcus Foundation. Cambridge, UK: Cambridge University Press, pp. 255–62. Available at: https://www.stateoftheapes.com/themes/volume-4-chapter-8-campaign-for-nonhuman-rights-and-status-of-captive-apes/.

Durham, D. and Phillipson, A. (2014). Status of captive apes across Africa and Asia: the impact of extractive industry. In *State of the Apes: Extractive Industries and Ape Conservation*, ed. Arcus Foundation. Cambridge, UK: Cambridge University Press, pp. 279–305. Available at: http://www.stateoftheapes.com/volume-1-extractive-industries/.

EAGLE (2019). *The EAGLE Network Annual Report 2019*. Eco Activists for Governance and Law Enforcement (EAGLE). Available at: https://www.eagle-enforcement.org/data/files/eagle-network-annual-report-2019.pdf.

Earth Systems (2015). *Mako Gold Project Environmental and Social Impact Assessment Report*. Dakar, Senegal: Earth Systems. Available at: https://documents.pub/document/mako-gold-project-rmlcomau-mako-gold-project-esia-non-technical-summary-final.html?page=1.

Eberle, R., Black, D.H. and Hilliard, J.K. (1989). Relatedness of glycoproteins expressed on the surface of simian herpesvirus virions and infected cells to specific HSV glycoproteins. *Archives of Virology*, **109**(3–4), 233–52. DOI: 10.1007/BF01311084.

Eberle, R. and Jones-Engel, L. (2017). Understanding primate herpesviruses. *Journal of Emerging Diseases and Virology*, **3**(1). DOI: 10.16966/2473-1846.127.

Edes, A.N. (2018). *Assessing long-term stress in great apes: allostatic load in western lowland gorillas (*Gorilla gorilla gorilla*)*. Doctoral thesis. Columbus, OH: The Ohio State University.

Edes, A.N., Edwards, K.L., Wolfe, B.A., Brown, J.L. and Crews, D.E. (2020). Allostatic load indices with cholesterol and triglycerides predict disease and mortality risk in zoo-housed western lowland gorillas (*Gorilla gorilla gorilla*). *Biomarker Insights*, **15**, 1177271920914585. DOI: 10.1177/1177271920914585.

Edes, A.N., Wolfe, B.A. and Crews, D.E. (2018). Evaluating allostatic load: a new approach to measuring long-term stress in wildlife. *Journal of Zoo and Wildlife Medicine*, **49**(2), 272–82, 11. DOI: 10.1638/2016-0070.1.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 15 Nov 2026 at 20:46:16, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781009071727.013

Edwards, D.P., Sloan, S., Weng, L., *et al.* (2014). Mining and the African environment. *Conservation Letters*, **7**(3), 302–11. DOI: 10.1111/conl.12076.

Edwards, S.J.L., Chatterjee, H.J. and Santini, J.M. (2021). Anthroponosis and risk management: a time for ethical vaccination of wildlife? *The Lancet Microbe*, **2**(6), e230–31. DOI: 10.1016/S2666-5247(21)00081-1.

Edwards, S.J.L., Norell, C.H., Illari, P., Clarke, B. and Neuhaus, C.P. (2018). A radical approach to Ebola: saving humans and other animals. *American Journal of Bioethics*, **18**(10), 35–42. DOI: 10.1080/15265161.2018.1513584.

Elder, A.A. (2009). Hylobatid diets revisited: the importance of body mass, fruit availability, and interspecific competition. In *The Gibbons: New Perspectives on Small Ape Socioecology and Population Biology*, ed. D. Whittaker and S. Lappan. New York, NY: Springer, pp. 133–59. DOI: 10.1007/978-0-387-88604-6_8.

Elichai, A. (2018). How big data can help in disaster response. *Scientific American Observations*, December 13, 2018. Available at: https://blogs.scientificamerican.com/observations/how-big-data-can-help-in-disaster-response/.

Ellwanger, J.H. and Chies, J.A.B. (2021). Zoonotic spillover: understanding basic aspects for better prevention. *Genetics and Molecular Biology*, **44**(1, S1), e20200355. DOI: 10.1590/1678-4685-GMB-2020-0355.

Ely, J.J., Bishop, M.A., Lammey, M.L., *et al.* (2010). Use of biomarkers of collagen types I and III fibrosis metabolism to detect cardiovascular and renal disease in chimpanzees (*Pan troglodytes*). *Comparative Medicine*, **60**(2), 154–8.

Ely, J.J., Zavaskis, T. and Lammey, M.L. (2013). Hypertension increases with aging and obesity in chimpanzees (*Pan troglodytes*). *Zoo Biology*, **32**(1), 79–87.

Emery Thompson, M., Jones, J.H., Pusey, A.E., *et al.* (2007). Aging and fertility patterns in wild chimpanzees provide insights into the evolution of menopause. *Current Biology*, **17**(24), 2150–6. DOI: 10.1016/j.cub.2007.11.033.

Emery Thompson, M., Muller, M.N., Machanda, Z.P., Otali, E. and Wrangham, R.W. (2020). The Kibale Chimpanzee Project: over thirty years of research, conservation, and change. *Biological Conservation*, **252**, 108857. DOI: 10.1016/j.biocon.2020.108857.

Emery Thompson, M. and Wrangham, R.W. (2008). Diet and reproductive function in wild female chimpanzees (*Pan troglodytes schweinfurthii*) at Kibale National Park, Uganda. *American Journal of Physical Anthropology*, **135**(2), 171–81. DOI: 10.1002/ajpa.20718.

Emery Thompson, M. and Wrangham, R.W. (2013). *Pan troglodytes* robust chimpanzee. In *Mammals of Africa. Volume II: Primates*, ed. T. M. Butynski, J. Kingdon and J. Kalina. London, UK: Bloomsbury Publishing, pp. 55–64.

Emery Thompson, M., Zhou, A. and Knott, C.D. (2012). Low testosterone correlates with delayed development in male orangutans. *PLoS ONE*, **7**(10), e47282. DOI: 10.1371/journal.pone.0047282.

Emmons, R.W. and Lennette, E.H. (1970). Natural herpesvirus hominis infection of a gibbon (*Hylobates lar*). *Archiv für die gesamte Virusforschung*, **31**(3), 215–18. DOI: 10.1007/BF01253755.

Endangered Asian Species Trust (2020a). Endangered Asian Species Trust. *Facebook Post*, September 22, 2020. Available at: https://www.facebook.com/permalink.php?story_fbid=pfbidorcrtXsmP3mQRoWgqC29QB1fr7KmUfbKvytBjRuGeREHQsoq92imk59GML8Sa615Vl&id=164617243557223.

Endangered Asian Species Trust (2020b). Endangered Asian Species Trust 2. *Facebook Post*, September 29, 2020. Available at: https://www.facebook.com/permalink.php?story_fbid=pfbid02ZHh1AXvejtvbbzQdpw1mgM8tonVDYdoUWm6UKYP3GHkmAh1WR8EnM1ThYkjcNTMdl&id=164617243557223.

Endangered Asian Species Trust (2020c). Golden-cheeked gibbon rehabilitation. *Facebook Post*, September 9, 2020. Available at: https://www.facebook.com/164617243557223/videos/316142682948849/.

Engelman, D., Yoshizumi, J., Hay, R.J., *et al.* (2020). The 2020 International Alliance for the Control of Scabies consensus criteria for the diagnosis of scabies. *British Journal of Dermatology*, **183**(5), 808–20. DOI: 10.1111/bjd.18943.

English, P. and Ahebwa, W.M. (2018). *How can Tourism become a Driver of Economic Growth in Uganda?* Prepared for the 2018 Economic Growth Forum and National Budget Conference. S-43437-UGA-1. London, UK: International Growth Centre (IGC).

ENISA (n.d.). *Risk Treatment.* Attiki, Greece: European Union Agency for Cybersecurity (ENISA). Available at: https://www.enisa.europa.eu/topics/threat-risk-management/risk-management/current-risk/risk-management-inventory/rm-process/risk-treatment. Accessed: July, 2022.

Equator Principles (2020). *Equator Principles EP4.* Equator Principles Association. Available at: https://equator-principles.com/app/uploads/The-Equator-Principles_EP4_July2020.pdf.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 15 Nov 2026 at 20:46:16, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781009071727.013

Erb, W.M., Barrow, E.J., Hofner, A.N., Utami-Atmoko, S.S. and Vogel, E.R. (2018). Wildfire smoke impacts activity and energetics of wild Bornean orangutans. *Scientific Reports*, **8**, 7606. DOI: 10.1038/s41598-018-25847-1.

Erdős, L. (2019). No one loved gorillas more – the life and legacy of Diane Fossey. In *Green Heroes: From Buddha to Leonardo DiCaprio*, ed. L. Erdős. Cham, Switzerland: Springer International Publishing, pp. 117–23. DOI: 10.1007/978-3-030-31806-2_24.

Errecaborde, K.M., Rist, C., Travis, D.A., *et al.* (2019). Evaluating One Health: the role of team science in multisectoral collaboration. *Revue Scientifique et Technique de l'Office International des Épizooties*, **38**(1), 279–89. DOI: 10.20506/rst.38.1.2960.

Estienne, V. (2022). *Nouabalé-Ndoki National Park. A.P.E.S. Wiki.* Munich, Germany: Max Planck Society for the Advancement of Science e.V. Available at: https://wiki.iucnapesportal.org/index.php/Nouabal%C3%A9-Ndoki_National_Park.

Estrada, A. (2013). Socioeconomic contexts of primate conservation: population, poverty, global economic demands, and sustainable land use. *American Journal of Primatology*, **75**(1), 30–45. DOI: 10.1002/ajp.22080.

Estrada, A. and Garber, P.A. (2022). Principal drivers and conservation solutions to the impending primate extinction crisis: introduction to the special issue. *International Journal of Primatology*, **43**(1), 1–14. DOI: 10.1007/s10764-022-00283-1.

Estrada, A., Garber, P.A., Mittermeier, R.A., *et al.* (2018). Primates in peril: the significance of Brazil, Madagascar, Indonesia and the Democratic Republic of the Congo for global primate conservation. *PeerJ*, **6**, e4869. DOI: 10.7717/peerj.4869.

Estrada, A., Garber, P.A., Rylands, A.B., *et al.* (2017). Impending extinction crisis of the world's primates: why primates matter. *Science Advances*, **3**(1), e1600946. DOI: 10.1126/sciadv.1600946.

Etieyibo, E. (2017). Ubuntu and the environment. In *The Palgrave Handbook of African Philosophy*, ed. A. Afolayan and T. Falola. New York, NY: Palgrave Macmillan US, pp. 633–57. DOI: 10.1057/978-1-137-59291-0_41.

European Commission (2021). *DG ECHO Guidance Note Disaster Preparedness.* Brussels, Belgium: European Commission. Available at: https://ec.europa.eu/echo/files/policies/sectoral/dg_echo_guidance_note_-_disaster_preparedness_en.pdf.

European Commission (n.d.). *Economics for Disaster Prevention and Preparedness.* Brussels, Belgium: European Commission. Available at: https://civil-protection-humanitarian-aid.ec.europa.eu/what/civil-protection/european-disaster-risk-management/economics-disaster-prevention-and-preparedness_en. Accessed: July, 2022.

Evans, T., Wingard, J. and Humle, T. (2021). The mitigation hierarchy in environmental impact assessment and related legislation as a tool for species conservation: a case study of western chimpanzees and mining development. *Biological Conservation*, **261**, 109237. DOI: 10.1016/j.biocon.2021.109237.

Eze, M. (2010). *Intellectual History in Contemporary South Africa.* London, UK: Palgrave MacMillan.

Fan, P.-F. (2017). The past, present, and future of gibbons in China. *Biological Conservation*, **210**, 29–39. DOI: 10.1016/j.biocon.2016.02.024.

Fan, P.-F., Fei, H., Xiang, Z., *et al.* (2010). Social structure and group dynamics of the Cao Vit gibbon (*Nomascus nasutus*) in Bangliang, Jingxi, China. *Folia Primatologica*, **81**(5), 245–53.

Fan, P.-F., He, K., Chen, X., *et al.* (2017). Description of a new species of hoolock gibbon (Primates: Hylobatidae) based on integrative taxonomy. *American Journal of Primatology*, **79**(5), e22631. DOI: 10.1002/ajp.22631.

Fan, P.-F. and Jiang, X.-L. (2008). Effects of food and topography on ranging behavior of black crested gibbon (*Nomascus concolor jingdongensis*) in Wuliang Mountain, Yunnan, China. *American Journal of Primatology*, **70**(9), 871–8. DOI: 10.1002/ajp.20577.

Fan, P.-F. and Jiang, X.-L. (2010). Maintenance of multifemale social organization in a group of *Nomascus concolor* at Wuliang Mountain, Yunnan, China. *International Journal of Primatology*, **31**(1), 1–13. DOI: 10.1007/s10764-009-9375-9.

Fan, P.-F., Turvey, S.T. and Bryant, J.V. (2020). Hoolock tianxing *(amended version of 2019 assessment). The IUCN Red List of Threatened Species 2020: e.T118355648A166597159.* Gland, Switzerland: International Union for Conservation of Nature (IUCN). DOI: 10.2305/IUCN.UK.2020-1.RLTS.T118355648A166597159.en.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 15 Nov 2026 at 20:46:16, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781009071727.013

FAO (2018). *The State of Food Security and Nutrition in the World 2018.* Rome, Italy: Food and Agriculture Organization of the United Nations (FAO). Available at: https://www.fao.org/3/I9553EN/i9553en.pdf.

FAO (n.d.-a). *Conservation Agriculture.* Rome, Italy: Food and Agriculture Organization of the United Nations (FAO). Available at: http://www.fao.org/conservation-agriculture/overview/what-is-conservation-agriculture/en/. Accessed: August, 2021.

FAO (n.d.-b). *Towards a New Green Revolution.* Rome, Italy: Food and Agriculture Organization of the United Nations (FAO). Available at: https://www.fao.org/3/x0262e/x0262e06.htm. Accessed: August, 2021.

FAO and NACA (2001). Contingency planning. In *Manual of Procedures for the Implementation of the Asia Regional Technical Guidelines on Health Management for the Responsible Movement of Live Aquatic Animals.* FAO Fisheries Technical Paper No. 402, Supplement 1, ed. Food and Agriculture Organization of the United Nations (FAO) and Network of Aquaculture Centres in Asia-Pacific (NACA). Rome, Italy: FAO, pp. 53–62. Available at: http://www.fao.org/3/y1238e/y1238e09.pdf.

Farmer, K.H. (2002). Pan-African Sanctuary Alliance: status and range of activities for great ape conservation. *American Journal of Primatology*, **58**(3), 117–32. DOI: 10.1002/ajp.10054.

Farmer, K.H. (2012). *Building Sustainable Sanctuaries.* Cambridge, UK: Arcus Foundation. Available at: http://www.sanctuaryfederation.org/gfas/wp-content/uploads/2013/09/Arcus_Building_Sustainable_Sanctuaries.pdf.

Farmer, K.H. (2018). *Compassionate Conservation Organizations: Challenges, Priorities and Recommended Action*. Unpublished report prepared for the Arcus Foundation.

Farrell, M., Rando, C. and Garrod, B. (2015). Lessons from the past: metabolic bone disease in historical captive primates. *International Journal of Primatology*, **36**(2), 398–411. DOI: 10.1007/s10764-015-9831-7.

Fasina, F.O., Fasanmi, O.G., Makonnen, Y.J., *et al.* (2021). The One Health landscape in Sub-Saharan African countries. *One Health*, **13**, 100325. DOI: 10.1016/j.onehlt.2021.100325.

Fauna Silvestre de Nicaragua (2020). Fauna Silvestre de Nicaragua. *Facebook Post*, April 12, 2020. Available at: https://www.facebook.com/eduszoo/videos/este-es-pipo-el-chimpance-del-zoo-nicaragua-es-un-gran-amigo-y-le-gusta-jugar-mu/215515939731881/.

Faust, C.L., McCallum, H.I., Bloomfield, L.S.P., *et al.* (2018). Pathogen spillover during land conversion. *Ecology Letters*, **21**(4), 471–83. DOI: 10.1111/ele.12904.

Faust, L.J., Cress, D., Farmer, K.H., Ross, S.R. and Beck, B.B. (2011). Predicting capacity demand on sanctuaries for African chimpanzees (*Pan troglodytes*). *International Journal of Primatology*, **32**(4), 849–64. DOI: 10.1007/s10764-011-9505-z.

Federer, K., Armua-Fernandez, M.T., Gori, F., *et al.* (2016). Detection of taeniid (*Taenia* spp., *Echinococcus* spp.) eggs contaminating vegetables and fruits sold in European markets and the risk for metacestode infections in captive primates. *International Journal for Parasitology: Parasites and Wildlife*, **5**(3), 249–53. DOI: 10.1016/j.ijppaw.2016.07.002.

Fedigan, L.M. (2010). Ethical issues faced by field primatologists: asking the relevant questions. *American Journal of Primatology*, **72**(9), 754–71. DOI: 10.1002/ajp.20814.

Feinberg, J. (1974). The rights of animals and unborn generations. In *Philosophy and Environmental Crisis*, ed. W. T. Blackstone. Athens, GA: University of Georgia Press, pp. 43–68.

Feldmann, H. and Geisbert, T.W. (2011). Ebola haemorrhagic fever. *The Lancet*, **377**(9768), 849–62. DOI: 10.1016/s0140-6736(10)60667-8.

FEMA (2017). *National Incident Management System.* Washington DC: Federal Emergency Management Agency (FEMA), US Department of Homeland Security. Available at: https://www.fema.gov/sites/default/files/2020-07/fema_nims_doctrine-2017.pdf.

Ferber, D. (2000). Human diseases threaten great apes. *Science*, **289**(5483), 1277–8. DOI: 10.1126/science.289.5483.1277.

Ferdowsian, H. (2020). The right to bodily sovereignty and its importance to mental and physical well-being. In *Neuroethics and Nonhuman Animals*, ed. L. S. M. Johnson, A. Fenton and A. Shriver. Cham, Switzerland: Springer International Publishing, pp. 255–70. DOI: 10.1007/978-3-030-31011-0_15.

Ferdowsian, H., Durham, D.L., Kimwele, C., *et al.* (2011). Signs of mood and anxiety disorders in chimpanzees. *PLoS ONE*, **6**(6), e19855. DOI: 10.1371/journal.pone.0019855.

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Ferdowsian, H. and Fuentes, A. (2014). Harms and deprivation of benefits for nonhuman primates in research. *Theoretical Medicine and Bioethics*, **35**(2), 143–56. DOI: 10.1007/s11017-014-9288-2.

Ferdowsian, H., Johnson, L.S.M., Johnson, J., *et al.* (2020). A Belmont report for animals? *Cambridge Quarterly of Healthcare Ethics*, **29**(1), 19–37. DOI: 10.1017/S0963180119000732.

Fernandez-Duque, E. and Rotundo, M. (2003). Field methods for capturing and marking azarai night monkeys. *International Journal of Primatology*, **24**(5), 1113–20. DOI: 10.1023/A:1026284430453.

Fernie, A.C. (2008). *The creation and implementation of a great ape welfare index.* Doctor of Philosophy thesis. Brisbane, Australia: The University of Queensland.

Fernie, A.C., Tribe, A., Murray, P.J., Lisle, A. and Phillips, C.J.C. (2012). A survey of the attitudes of stakeholders in the zoo industry towards the husbandry requirements of captive great apes. *Animal Welfare*, **21**(2), 233–45. DOI: 10.7120/09627286.21.2.233.

Ferrie, G.M., Farmer, K.H., Kuhar, C.W., *et al.* (2014). The social, economic, and environmental contributions of Pan African Sanctuary Alliance primate sanctuaries in Africa. *Biodiversity and Conservation*, **23**(1), 187–201. DOI: 10.1007/s10531-013-0592-3.

Ferris, R.L., Ali, I.K.M. and West, G.D. (2021). Use of a human indirect immunofluorescence antibody assay for *Balamuthia mandrillaris* in a group of captive northwest Bornean orangutans (*Pongo pygmaeus pygmaeus*). *Journal of Zoo and Wildlife Medicine*, **52**, 310–14. DOI: 10.1638/2019-0018.

Figley, C.R. (1995). *Compassion Fatigue: Coping with Secondary Traumatic Stress Disorder in Those Who Treat the Traumatized.* Brunner/Mazel Psychological Stress Series No. 23. Philadelphia, PA: Brunner/Mazel.

Filippone, C., Betsem, E., Tortevoye, P., *et al.* (2015). A severe bite from a nonhuman primate is a major risk factor for HTLV-1 infection in hunters from Central Africa. *Clinical Infectious Diseases*, **60**(11), 1667–76. DOI: 10.1093/cid/civ145.

Finley, N. (2019). Out on a limb: unlikely collaboration boosts orangutans in Borneo. *Mongabay Series: Great Apes*, June 12, 2019. Available at: https://news.mongabay.com/2019/06/out-on-a-limb-unlikely-collaboration-boosts-orangutans-in-borneo/.

Fischer, C.P. and Romero, L.M. (2019). Chronic captivity stress in wild animals is highly species-specific. *Conservation Physiology*, **7**(1), coz093. DOI: 10.1093/conphys/coz093.

Fischer, J. and Lindenmayer, D.B. (2000). An assessment of the published results of animal relocations. *Biological Conservation*, **96**(1), 1–11. DOI: 10.1016/S0006-3207(00)00048-3.

Fitzgerald, K. (2022). *Mountain Gorilla Tourism Drives Economic Growth And Conservation.* Nairobi, Kenya: African Wildlife Foundation (AWF) Conservation Centre. Available at: https://www.awf.org/blog/mountain-gorilla-tourism-drives-economic-growth-and-conservation.

Fleury, E. (2017). Money for monkeys, and more: ensuring sanctuary retirement of nonhuman primates. *Animal Studies Journal*, **6**(2), 30–54. DOI: https://ro.uow.edu.au/asj/vol6/iss2/4.

Foitová, I., Civáňová, K., Baruš, V. and Nurcahyo, W. (2014). Phylogenetic relationships between pinworms (Nematoda: Enterobiinae) parasitising the critically endangered orang-utan, according to the characterisation of molecular genomic and mitochondrial markers. *Parasitology Research*, **113**(7), 2455–66. DOI: 10.1007/s00436-014-3892-y.

Foitová, I., Koubková, B., Barus, V. and Nurcahyo, W. (2008). Presence and species identification of the gapeworm *Mammomonogamus laryngeus* (Railliet, 1899) (Syngamidae: Nematoda) in a semi-wild population of Sumatran orangutan (*Pongo abelii*) in Indonesia. *Research in Veterinary Science*, **84**(2), 232–6. DOI: 10.1016/j.rvsc.2007.04.021.

Fontseré, C., Frandsen, P., Hernández-Rodríguez, J., *et al.* (2021). The genetic impact of an Ebola outbreak on a wild gorilla population. *BMC Genomics*, **22**(1), 735. DOI: 10.1186/s12864-021-08025-y.

Formenty, P.B.H., Boesch, C., Wyers, M., *et al.* (1999). Ebola virus outbreak among wild chimpanzees living in a rain forest of Côte d'Ivoire. *Journal of Infectious Diseases*, **179** (S1), S120–6. DOI: 10.1086/514296.

Fort Worth Zoo (2020). Fort Worth Zoo. *Facebook Post*, June 30, 2020. Available at: https://www.facebook.com/FortWorthZoo/posts/we-have-10-bonobos-at-zoo-i-will-give-you-a-brief-introduction-from-oldest-to-yo/10158320883452095/.

Four Paws International (2020a). *Annual Report 2020.* Vienna, Austria: Four Paws International. Available at: https://media.4-paws.org/e/3/0/e/e30e825655512c7a48099a8290231844d4a13af3/210811_FOURPAWSAnnualReport2020.pdf.

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Four Paws International (2020b). Circuses without wild animals. *Four Paws International*, March 21, 2023. Available at: https://www.four-paws.org/campaigns-topics/topics/wild-animals/worldwide-circus-bans.

Fourie, C. (2017). Who is experiencing what kind of moral distress? Distinctions for moving from a narrow to a broad definition of moral distress. *AMA Journal of Ethics*, **19**(6), 578–84. DOI: 10.1001/journalofethics.2017.19.6.nlit1-1706.

Fraser, D. (2009). Assessing animal welfare: different philosophies, different scientific approaches. *Zoo Biology*, **28**(6), 507–18. DOI: 10.1002/zoo.20253.

Fraser, D. (2010). Toward a synthesis of conservation and animal welfare science. *Animal Welfare*, **19**(2), 121–4. DOI: 10.1017/S0962728600001378.

Freeland, W.J. (1976). Pathogens and the evolution of primate sociality. *Biotropica*, **8**, 12–24.

Freund, C., Rahman, E. and Knott, C. (2017). Ten years of orangutan-related wildlife crime investigation in West Kalimantan, Indonesia. *American Journal of Primatology*, **79**(11), 22620. DOI: 10.1002/ajp.22620.

Fribourg-Blanc, A. and Mollaret, H.H. (1969). Natural treponematosis of the African primate. *Primates in Medicine*, **3**(0), 113–21.

Fribourg-Blanc, A., Mollaret, H.H. and Niel, G. (1966). [Serologic and microscopic confirmation of treponemosis in Guinea baboons]. *Bulletin de la Société de Pathologie Exotique et de ses Filiales*, **59**(1), 54–9.

Friend, M., Hurley, J.W., Nol, P. and Wesenberg, K. (2006). *Disease Emergence and Resurgence – The Wildlife–Human Connection.* Circular 1285. Reston, VA: US Geological Survey. DOI: 10.3133/cir1285.

Friends of Animals (n.d.). *Chimpanzee Rehabilitation Project River Gambia National Park Visitor Information Sheet.* Darien, CT: Friends of Animals. Available at: https://www.friendsofanimals.org/program/visit-the-river-gambia-national-park/. Accessed: October, 2020.

Fröhlich, M., Kunz, J.A., Fryns, C., *et al.* (2020). Social interactions and interaction partners in infant orang-utans of two wild populations. *Animal Behaviour*, **166**, 183–91.

Fruth, B., Hickey, J.R., André, C., *et al.* (2016). Pan paniscus *(errata version published in 2016). The IUCN Red List of Threatened Species 2016: e.T15932A102331567.* Gland, Switzerland: International Union for Conservation of Nature (IUCN). DOI: 10.2305/IUCN.UK.2016-2.RLTS.T15932A17964305.en.

Fruth, B. and Hohmann, G. (1996). Nest building behavior in the great apes: the great leap forward? In *Great Ape Societies*, ed. W. McGrew, L. Marchant and T. Nishida. Cambridge, UK: Cambridge University Press, pp. 225–40. DOI: 10.1017/CBO9780511752414.019.

Fruth, B., Tagg, N. and Stewart, F. (2018). Sleep and nesting behavior in primates: a review. *American Journal of Physical Anthropology*, **166**(3), 499–509. DOI: 10.1002/ajpa.23373.

Fruth, B., Williamson, E.A. and Richardson, M.C. (2013). Bonobo *Pan paniscus*. In *Handbook of the Mammals of the World. Volume 3: Primates*, ed. R. A. Mittermeier, A. B. Rylands and D. E. Wilson. Barcelona, Spain: Lynx Edicions, pp. 853–4.

FSC (2019). *PSU Review Report of FSC-STD-01-001 FSC Principles and Criteria for Forest Stewardship.* Bonn, Germany: Forest Stewardship Council (FSC) International Center. Available at: https://connect.fsc.org/sites/default/files/2019-10/Review%20report%20FSC-STD-01-001.pdf.

FSC (2023). *FSC Principles and Criteria for Forest Stewardship. FSC-STD-01-001 V5-3.* Bonn, Germany: Forest Stewardship Council (FSC). Available at: https://connect.fsc.org/document-centre/documents/resource/392.

FSC (n.d.). *Our History.* London, UK: Forest Stewardship Council (FSC). Available at: https://fsc.org/en/our-history. Accessed: December, 2022.

Fujita, S. (2011). Health monitoring. In *The Chimpanzees of Bossou and Nimba*, ed. T. Matsuzawa, T. Humle and Y. Sugiyama. Tokyo, Japan: Springer, pp. 353–9. DOI: 10.1007/978-4-431-53921-6_37.

Fuller, G., Margulis, S.W. and Santymire, R.M. (2011). The effectiveness of indigestible markers for identifying individual animal feces and their prevalence of use in North American zoos. *Zoo Biology*, **30**(4), 379–98.

Furuichi, T. (2009). Factors underlying party size differences between chimpanzees and bonobos: a review and hypotheses for future study. *Primates*, **50**(3), 197–209. DOI: 10.1007/s10329-009-0141-6.

Furuichi, T., Hashimoto, C., Idani, G., *et al.* (1999). Current situation of studies of bonobos (*Pan paniscus*) at Wamba, D.R. Congo. *Primate Research*, **15**(2), 115–27. DOI: 10.2354/psj.15.115.

FVE (n.d.). *Code of Good Veterinary Practice.* Brussels, Belgium: Federation of Veterinarians of Europe (FVE). Available at: https://www.eesc.europa.eu/sites/default/files/resources/docs/130-private-act.pdf. Accessed: February, 2021.

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G1 (2020). Aos 57 anos, chimpanzé Bob recebe novo companheiro de recinto no Zoo de Curitiba. *G1*, April 2, 2020. Available at: https://g1.globo.com/pr/parana/noticia/2020/04/02/chimpanze-bob-recebe-novo-companheiro-de-recinto-no-zoo-de-curitiba.ghtml.

GADM (n.d.). *GADM Maps and Data.* Available at: https://gadm.org/index.html. Accessed: October, 2021.

Gagliardi, A., Totino, V., Cacciotti, F., *et al.* (2018). Rebuilding the gut microbiota ecosystem. *International Journal of Environmental Research and Public Health*, **15**(8), 1679. DOI: 10.3390/ijerph15081679.

GAHP (n.d.). *Anesthesia Info.* Royal Oak, MI: Great Ape Heart Project (GAHP), Detroit Zoological Society. Available at: https://greatapeheartproject.org/resources/anesthesia-info/. Accessed: December, 2020.

GAIN (n.d.). *Great Ape Information Network.* Kyoto, Japan: National BioResource Project (NBRP)—Great Ape Information Network (GAIN). Available at: http://www.shigen.nig.ac.jp/gain/index.jsp. Accessed: October, 2020.

GAL (2018). *UN Convention of Animal Health and Protection (UNCAHP). First Pre-Draft of the Global Animal Welfare Law Association August 23rd 2018.* Zürich, Switzerland: Global Animal Law (GAL) Association. Available at: https://www.globalanimallaw.org/downloads/Folder-UNCAHP.pdf.

Gamble, K.C., North, M.C.K., Backues, K. and Ross, S.R. (2004). Pathologic review of the chimpanzee (*Pan troglodytes*): 1990–2003. Presented at: *Proceedings of the Annual Meeting of the American Association of Zoo Veterinarians, San Diego, CA, 28 August–3 September 2004*. Jacksonville, FL: American Association of Zoo Veterinarians.

Game, E.T., Meijaard, E., Sheil, D. and McDonald-Madden, E. (2014). Conservation in a wicked complex world; challenges and solutions. *Conservation Letters*, **7**(3), 271–7. DOI: 10.1111/conl.12050.

Ganas, J., Robbins, M.M., Nkurunungi, J.B., Kaplin, B.A. and McNeilage, A. (2004). Dietary variability of mountain gorillas in Bwindi Impenetrable National Park, Uganda. *International Journal of Primatology*, **25**(5), 1043–72. DOI: 10.1023/b:ijop.0000043351.20129.44.

Gaskin, J.M. (2022). Encephalomyocarditis virus infection in animals. In *MSD Manual Veterinary Manual*, ed. MSD. Rahway, NJ: Merck & Co. Inc (MSD). Available at: https://www.msdvetmanual.com/generalized-conditions/encephalomyocarditis-virus-infection/encephalomyocarditis-virus-infection-in-animals.

GATO (2020). Historical achievements of GATO and its following objective. *GATO News*, October 26, 2020. Available at: https://gyvunuapsauga.lt/en/news/historical-achievements-of-gato-and-its-following-objectives/.

Gaveau, D.L.A., Sloan, S., Molidena, E., *et al.* (2014). Four decades of forest persistence, clearance and logging on Borneo. *PLoS ONE*, **9**(7), e101654. DOI: 10.1371/journal.pone.0101654.

GCC (n.d.). *GCC Gibbons.* Santa Clarita, CA: Gibbon Conservation Center (GCC). Available at: https://www.gibboncenter.org/list-of-gcc-gibbons.html. Accessed: October, 2020.

GDPC (n.d.). *Early Warning Systems.* Washington DC: Global Disaster Preparedness Center (GDPC). Available at: https://preparecenter.org/topic/early-warning-systems/#:~:text=Early%20warning%20system%20%E2%80%93%20The%20set,possibility%20of%20harm%20or%20loss. Accessed: July, 2022.

Geissmann, T. (1991). Reassessment of age of sexual maturity in gibbons (*Hylobates* spp.). *American Journal of Primatology*, **23**(1), 11–22. DOI: 10.1002/ajp.1350230103.

Geissmann, T., Grindley, M., Ngwe, L., *et al.* (2013). *The Conservation Status of Hoolock Gibbons in Myanmar.* Zürich, Switzerland: Gibbon Conservation Alliance. Available at: http://www.gibbonconservation.org/07_publications/book/2013_hoolock_myanmar.pdf.

Genton, C.l., Cristescu, R.H., Gatti, S., *et al.* (2017). Using demographic characteristics of populations to detect spatial fragmentation following suspected Ebola outbreaks in great apes. *American Journal of Physical Anthropology*, **164**(1), 3–10.

Genton, C.l., Pierre, A., Cristescu, R.H., *et al.* (2015). How Ebola impacts social dynamics in gorillas: a multistate modelling approach. *Journal of Animal Ecology*, **84**(1), 166–76.

Georges, A.-J., Leroy, E.M., Renaut, A., *et al.* (1999). Ebola hemorrhagic fever outbreaks in Gabon, 1994–1997: epidemiologic and health control issues. *Journal of Infectious Diseases*, **179**, S65–75.

Georges-Courbot, M.C., Sanchez, A.J., Lu, C.Y., *et al.* (1997). Isolation and phylogenetic characterization of Ebola viruses causing different outbreaks in Gabon. *Emerging Infectious Diseases*, **3**(1), 59–62.

Gevers, D., Kugathasan, S., Denson, Lee A., *et al.* (2014). The treatment-naive microbiome in new-onset Crohn's disease. *Cell Host & Microbe*, **15**(3), 382–92. DOI: 10.1016/j.chom.2014.02.005.

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GFAS (2017). *Contingency Planning for Sanctuaries and Rehabilitation Centers.* Phoenix, AZ: Global Federation of Animal Sanctuaries (GFAS). Available at: https://sanctuaryfederation.org/webinars/contingency-planning-for-sanctuaries-and-rehabilitation-centers/.

GFAS (2019). *Gorilla Rehabilitation and Conservation Education (GRACE) Center.* Phoenix, AZ: Global Federation of Animal Sanctuaries (GFAS). Available at: https://sanctuaryfederation.org/sanctuaries/gorilla-rehabilitation-and-conservation-education-center-grace/.

GFAS (2020). *Recipients of the 2020 Carole Noon and Outstanding Sanctuary Awards Announced.* Phoenix, AZ: Global Federation of Animal Sanctuaries (GFAS). Available at: https://www.sanctuaryfederation.org/2020/10/23/recipients-of-the-2020-carole-noon-and-outstanding-sanctuary-awards-announced/.

GFAS (2022). *Standards Appendix for Ape Sanctuaries.* Phoenix, AZ: Global Federation of Animal Sanctuaries (GFAS). Available at: https://sanctuaryfederation.org/wp-content/uploads/2023/02/Ape-Standards-Appendix-2022.pdf.

GFAS (n.d.). *Find a Sanctuary.* Phoenix, AZ: Global Federation of Animal Sanctuaries (GFAS). Available at: https://sanctuaryfederation.org/find-a-sanctuary/. Accessed: December, 2022.

GHSA (2020). *Turning Crisis to Opportunities for Workforce Development.* Global Health Security Agenda (GHSA).

Giannetti, B.F., Agostinho, F., Almeida, C.M.V.B. and Huisingh, D. (2015). A review of limitations of GDP and alternative indices to monitor human wellbeing and to manage eco-system functionality. *Journal of Cleaner Production*, **87**, 11–25. DOI: 10.1016/j.jclepro.2014.10.051.

Gibbon Rehabilitation Project (n.d.). *Gibbon Sponsorship Program.* Phuket, Thailand: The Wild Animal Rescue Foundation of Thailand (WARF). Available at: https://www.gibbonproject.org/gibbon-sponsorship-program/. Accessed: October, 2020.

Gibbons, A. (2020). Ape researchers mobilize to save primates from coronavirus. *Science*, **368**(6491), 566. DOI: 10.1126/science.368.6491.566-a.

Gibbs, E.P.J. (2014). The evolution of One Health: a decade of progress and challenges for the future. *Veterinary Record*, **174**(4), 85–91. DOI: 10.1136/vr.g143.

GIBOP (2019). *Global Inventory of Biodiversity Offset Policies (GIBOP).* Gland, Switzerland: International Union for Conservation of Nature (IUCN). Available at: https://portals.iucn.org/offsetpolicy/.

Gibson, M. (2011). The universal declaration of animal welfare. *Deakin Law Review*, **16**(2), 539–67. DOI: 10.21153/dlr2011vol16no2art112.

Gilardi, K.V., Gillespie, T.R., Leendertz, F.H., *et al.* (2015). *Best Practice Guidelines for Health Monitoring and Disease Control in Great Ape Populations.* Gland, Switzerland: International Union for Conservation of Nature (IUCN) Species Survival Commission (SSC) Primate Specialist Group (PSG). Available at: https://www.iucngreatapes.org/health-monitoring-and-disease-prevention.

Gilardi, K.V., Nziza, J., Ssebide, B., *et al.* (2022). Endangered mountain gorillas and COVID-19: One Health lessons for prevention and preparedness during a global pandemic. *American Journal of Primatology*, **84**(4–5), e23291. DOI: 10.1002/ajp.23291.

Gilardi, K.V., Oxford, K.L., Gardner-Roberts, D., *et al.* (2014). Human herpes simplex virus type 1 in confiscated gorilla. *Emerging Infectious Diseases*, **20**(11), 1883–6. DOI: 10.3201/eid2011.140075.

Gilardi, K.V. and Uwingeli, P. (2022). Keep mountain gorillas free from pandemic virus. *Nature*, **602**(7896), 211. DOI: 10.1038/d41586-022-00331-z.

Gill, V. (2017). Endangered apes saved from pet trade. *BBC News*, November 7, 2017. Available at: https://www.bbc.com/news/science-environment-41767347.

Gillespie, T.R. (2019). Guest editorial: Protecting wild primates during the novel coronavirus pandemic and beyond. *Asian Primates Journal*, **8**(1), 1.

Gillespie, T.R. and Chapman, C.A. (2006). Prediction of parasite infection dynamics in primate metapopulations based on attributes of forest fragmentation. *Conservation Biology*, **20**(2), 441–8.

Gillespie, T.R. and Chapman, C.A. (2008). Forest fragmentation, the decline of an endangered primate, and changes in host–parasite interactions relative to an unfragmented forest. *American Journal of Primatology*, **70**(3), 222–30. DOI: 10.1002/ajp.20475.

Gillespie, T.R., Chapman, C.A. and Greiner, E.C. (2005). Effects of logging on gastrointestinal parasite infections and infection risk in African primates. *Journal of Applied Ecology*, **42**(4), 699–707. DOI: 10.1111/j.1365-2664.2005.01049.x.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 15 Nov 2026 at 20:46:16, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781009071727.013

Gillespie, T.R., Jones, K.E., Dobson, A.P., Clennon, J.A. and Pascual, M. (2021). COVID-clarity demands unification of health and environmental policy. *Global Change Biology*, **27**(7), 1319–21. DOI: 10.1111/gcb.15508.

Gillespie, T.R. and Leendertz, F.H. (2020). COVID-19: protect great apes during human pandemics. *Nature*, **579**(7800), 497. DOI: 10.1038/d41586-020-00859-y.

Gillespie, T.R., Lonsdorf, E.V., Canfield, E.P., *et al.* (2010). Demographic and ecological effects on patterns of parasitism in eastern chimpanzees (*Pan troglodytes schweinfurthii*) in Gombe National Park, Tanzania. *American Journal of Physical Anthropology*, **143**(4), 534–44. DOI: 10.1002/ajpa.21348.

Gillespie, T.R., Nunn, C.L. and Leendertz, F.H. (2008). Integrative approaches to the study of primate infectious disease: implications for biodiversity conservation and global health. *American Journal of Physical Anthropology*, **137**(S47), 53–69. DOI: 10.1002/ajpa.20949.

Gjeltema, J., Troan, B.V., Muehlenbachs, A., *et al.* (2016). Amoebic meningoencephalitis and disseminated infection caused by *Balamuthia mandrillaris* in a western lowland gorilla (*Gorilla gorilla gorilla*). *Journal of the American Veterinary Medical Association*, **248**(3), 315–21. DOI: 10.2460/javma.248.3.315.

Gogarten, J.F., Akoua-Koffi, C., Calvignac-Spencer, S., *et al.* (2014). The ecology of primate retroviruses: an assessment of 12 years of retroviral studies in the Taï National Park area, Côte d'Ivoire. *Virology*, **460–461**, 147–53. DOI: 10.1016/j.virol.2014.05.012.

Gogarten, J.F., Calvignac-Spencer, S., Nunn, C.L., *et al.* (2020). Metabarcoding of eukaryotic parasite communities describes diverse parasite assemblages spanning the primate phylogeny. *Molecular Ecology Resources*, **20**, 204–15. DOI: 10.1111/1755-0998.13101.

Gogarten, J.F., Davies, T.J., Benjamino, J., *et al.* (2018). Factors influencing bacterial microbiome composition in a wild non-human primate community in Taï National Park, Côte d'Ivoire. *The ISME Journal*, **12**(10), 2559–74. DOI: 10.1038/s41396-018-0166-1.

Gogarten, J.F., Düx, A., Mubemba, B., *et al.* (2019a). Tropical rainforest flies carrying pathogens form stable associations with social nonhuman primates. *Molecular Ecology*, **28**(18), 4242–58. DOI: 10.1111/mec.15145.

Gogarten, J.F., Düx, A., Schuenemann, V.J., *et al.* (2016). Tools for opening new chapters in the book of *Treponema pallidum* evolutionary history. *Clinical Microbiology and Infection*, **22**(11), 916–21.

Gogarten, J.F., Rühlemann, M.C., Archie, E.A., *et al.* (2021). Primate phageomes are structured by superhost phylogeny and environment. *Proceedings of the National Academy of Sciences*, **118**(15), e2013535118.

Gogarten, J.F., Schubert, G., Leendertz, F.H. and Calvignac-Spencer, S. (2019b). The chimpanzees of the Taï Forest as models for hominine microorganism ecology and evolution. In *The Chimpanzees of the Taï Forest: 40 Years of Research*, ed. C. Boesch, R. Wittig, C. Crockford, *et al.* Cambridge, UK: Cambridge University Press, pp. 366–84.

Goldberg, T.L., Gendron-Fitzpatrick, A., Deering, K.M., *et al.* (2014). Fatal metacestode infection in Bornean orangutan caused by unknown *Versteria* species. *Emerging Infectious Diseases*, **20**(1), 109–13. DOI: 10.3201/eid2001.131191.

Goldsmith, M. (2000). Effects of ecotourism on the behavioral ecology of Bwindi gorillas, Uganda: preliminary results. *American Journal of Physical Anthropology*, **111**(S30), 161.

Goldsmith, M.L. (2014). Mountain gorilla tourism as a conservation tool: have we tipped the balance? In *Primate Tourism: A Tool for Conservation?*, ed. A. E. Russon and J. Wallis. Cambridge, UK: Cambridge University Press, pp. 177–98. DOI: 10.1017/CBO9781139087407.013.

Gonçalves, A. and Carvalho, S. (2019). Death among primates: a critical review of non-human primate interactions towards their dead and dying. *Biological Reviews*, **94**(4), 1502–29.

Gond, V., Fayolle, A., Pennec, A., *et al.* (2013). Vegetation structure and greenness in Central Africa from Modis multi-temporal data. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **368**(1625), 20120309. DOI: 10.1098/rstb.2012.0309.

Goodall, J. (1983). Population dynamics during a 15 year period in one community of free-living chimpanzees in the Gombe National Park, Tanzania. *Zeitschrift für Tierpsychologie*, **61**(1), 1–60. DOI: 10.1111/j.1439-0310.1983.tb01324.x.

Goodall, J. (1986). *The Chimpanzees of Gombe: Patterns of Behavior.* Cambridge, MA: Harvard University Press.

Goodall, J. (1998). Essays on science and society: learning from the chimpanzees: a message humans can understand. *Science*, **282**(5397), 2184–5. DOI: 10.1126/science.282.5397.2184.

Goodall, J. (2000). *In the Shadow of Man.* New York, NY: Houghton Mifflin.

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Goodman, R.A., Bunnell, R. and Posner, S.F. (2014). What is "community health"? Examining the meaning of an evolving field in public health. *Preventive Medicine*, **67**, S58–61. DOI: 10.1016/j.ypmed.2014.07.028.

Goodpaster, K.E. (1978). On being morally considerable. *Journal of Philosophy*, **75**(6), 308–25.

Goodwin, H. (2007). Indigenous tourism and poverty reduction. In *Tourism and Indigenous Peoples*, ed. R. Butler and T. Hinch. Oxford, UK: Butterworth-Heinemann, pp. 84–94.

Goodwin, H. (2014). Responsible tourism and the green economy. In *Green Growth and Travelism: Concept, Policy and Practice for Sustainable Tourism*, ed. T. DeLacy, M. Jiang, G. Lipman and S. Vorster: Routledge, pp. 133–44.

Goodwin, H. (2016). *Responsible Tourism: Using Tourism for Sustainable Development*, 2nd edn. Oxford, UK: Goodfellow Publishers Ltd.

Goossens, B., Kapar, M.D., Kahar, S. and Ancrenaz, M. (2011). First sighting of Bornean orang-utan twins in the wild. *Asian Primates Journal*, **2**(1), 10–12.

Goossens, B., Setchell, J.M., James, S.S., *et al.* (2006). Philopatry and reproductive success in Bornean orang-utans (*Pongo pygmaeus*). *Molecular Ecology*, **15**(9), 2577–88. DOI: 10.1111/j.1365-294x.2006.02952.x.

Goossens, B., Setchell, J.M., Tchidongo, E., *et al.* (2005). Survival, interactions with conspecifics and reproduction in 37 chimpanzees released into the wild. *Biological Conservation*, **123**(4), 461–75. DOI: 10.1016/j.biocon.2005.01.008.

Gorilla Doctors (n.d.-a). *About Us.* Davis, CA: Gorilla Doctors. Available at: https://www.gorilladoctors.org/about-us/. Accessed: September, 2022.

Gorilla Doctors (n.d.-b). *Doctors and Staff.* Davis, CA: Gorilla Doctors. Available at: https://www.gorilladoctors.org/about-us/team/. Accessed: September, 2022.

Gorilla Doctors (n.d.-c). *Employee Health Program.* Davis, CA: Gorilla Doctors. Available at: https://www.gorilla-doctors.org/saving-lives/one-health-medicine/employee-health-program/ Accessed: September, 2022.

Gorilla Doctors (n.d.-d). *History.* Davis, CA: Gorilla Doctors. Available at: https://www.gorilladoctors.org/about-us/history-past-gorilla-doctors/. Accessed: October, 2022.

Gorilla Doctors (n.d.-e). *One Health Medicine.* Davis, CA: Gorilla Doctors. Available at: https://www.gorilladoctors.org/saving-lives/one-health-medicine/. Accessed: September, 2022.

Gorilla Doctors (n.d.-f). *UC Davis and MGVP Partnership.* Davis, CA: Gorilla Doctors. Available at: https://www.gorilladoctors.org/about-us/uc-davis/. Accessed: September, 2022.

Gormus, B.J., Xu, K., Alford, P.L., *et al.* (1991). A serologic study of naturally acquired leprosy in chimpanzees. *International Journal of Leprosy and Other Mycobacterial Diseases*, **59**(3), 450–7.

Government of Uganda (2019). *The National Environmental Act, 2019.* Uganda: National Environment Management Authority. Available at: https://nema.go.ug/sites/all/themes/nema/docs/National%20Environment%20Act,%20No.%205%20of%202019.pdf.

GRACE (2019). *GRACE Awarded Accreditation by the Global Federation of Animal Sanctuaries.* North Kivu Province, Democratic Republic of Congo: Gorilla Rehabilitation and Conservation Education (GRACE). Available at: https://gracegorillas.org/2019/09/17/grace-gfas-accredited/.

GRACE (2020). *GRACE 2019 Annual Report.* North Kivu Province, Democratic Republic of Congo: Gorilla Rehabilitation and Conservation Education (GRACE). Available at: https://gracegorillas.org/annual-reports/.

Graczyk, T.K., Mudakikwa, A.B., Cranfield, M.R. and Eilenberger, U. (2001). Hyperkeratotic mange caused by *Sarcoptes scabiei* (Acariformes: Sarcoptidae) in juvenile human-habituated mountain gorillas (*Gorilla gorilla beringei*). *Parasitology Research*, **87**, 1024–8. DOI: 10.1007/s004360100489.

Graef, A. (2021). Jane Goodall among 80+ leaders in animal advocacy & conservation calling for AP stylebook update. *In Defense of Animals Media Release*, March 25, 2021. Available at: https://www.idausa.org/campaign/guardian/latest-news/jane-goodall-joins-in-defense-of-animals-call-for-ap-stylebook-update/.

Graham, T.L., Matthews, H.D. and Turner, S.E. (2016). A global-scale evaluation of primate exposure and vulnerability to climate change. *International Journal of Primatology*, **37**(2), 158–74. DOI: 10.1007/s10764-016-9890-4.

Granjon, A.-C., Robbins, M.M., Arinaitwe, J., *et al.* (2020a). Estimating abundance and growth rates in a wild mountain gorilla population. *Animal Conservation*, **23**(4), 455–65. DOI: 10.1111/acv.12559.

Granjon, A.-C., Robbins, M., Arinaitwe, J., *et al.* (2020b). Increased survey effort and intrinsic growth contribute to the largest recorded mountain gorilla population. *Animal Conservation*, **23**(4), 455–65.

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Grantham, H.S., Duncan, A., Evans, T.D., *et al.* (2020a). Anthropogenic modification of forests means only 40% of remaining forests have high ecosystem integrity. *Nature Communications*, **11**(1), 5978. DOI: 10.1038/s41467-020-19493-3.

Grantham, H.S., Shapiro, A., Bonfils, D., *et al.* (2020b). Spatial priorities for conserving the most intact biodiverse forests within Central Africa. *Environmental Research Letters*, **15**(9), 0940b5. DOI: 10.1088/1748-9326/ab9fae.

GRASP and IUCN (2018). *Report to the CITES Standing Committee on the Status of Great Apes.* Nairobi, Kenya, and Gland, Switzerland: United Nations Environment Programme Great Apes Survival Partnership (GRASP) and International Union for Conservation of Nature (IUCN). Available at: http://www.primate-sg.org/storage/pdf/GRASP__IUCN_2018_Report_to_CITES_on_the_Status_of_Great_Apes.pdf.

Graving, J.M., Chae, D., Naik, H., *et al.* (2019). DeepPoseKit, a software toolkit for fast and robust animal pose estimation using deep learning. *eLife*, **8**, e47994. DOI: 10.7554/eLife.47994.

Gray, C. and Favre, D. (2022). Veterinary ethics and the law. In *Ethics in Veterinary Practice: Balancing Conflicting Interests*, ed. B. Kipperman and B. E. Rollin. Hoboken, NJ: John Wiley & Sons Inc, pp. 78–99.

Gray, M., McNeilage, A., Fawcett, K., *et al.* (2010). Censusing the mountain gorillas in the Virunga Volcanoes: complete sweep method versus monitoring. *African Journal of Ecology*, **48**(3), 588–99. DOI: 10.1111/j.1365-2028.2009.01142.x.

Gray, M., Roy, J., Vigilant, L., *et al.* (2013). Genetic census reveals increased but uneven growth of a critically endangered mountain gorilla population. *Biological Conservation*, **158**(Supplement C), 230–8. DOI: 10.1016/j.biocon.2012.09.018.

Gray, S.J. (2012). *Conservation difficulties for* Hylobates lar*: effects the illegal pet trade has on white-handed gibbons' behavioral health and successful rehabilitation.* Undergraduate Honors thesis. Boulder, CO: University of Colorado Boulder. Available at: https://scholar.colorado.edu/concern/undergraduate_honors_theses/12579s59n.

Great Ape Project (n.d.). *World Declaration on Great Apes.* Great Ape Project (GAP). Available at: https://www.projetogap.org.br/en/world-declaration-on-great-primates/. Accessed: December, 2022.

Greene, M. (2005). *Jane Goodall: A Biography.* Westport, CT: Greenwood Press.

Greenpeace Africa (2020). 34 plastic bans in Africa: a reality check. *Greenpeace Africa*, May 19, 2020. Available at: https://www.greenpeace.org/africa/en/blogs/11156/34-plastic-bans-in-africa/.

Greggor, A.L., Berger-Tal, O., Blumstein, D.T., *et al.* (2016). Research priorities from animal behaviour for maximising conservation progress. *Trends in Ecology & Evolution*, **31**(12), 953–64. DOI: 10.1016/j.tree.2016.09.001.

Gresl, T.A., Baum, S.T. and Kemnitz, J.W. (2000). Glucose regulation in captive *Pongo pygmaeus abeli*, *P. p. pygmaeus,* and *P. p. abeli* × *P. p. pygmaeus* orangutans. *Zoo Biology*, **19**(3), 193–208.

Grimm, D. (2020). Chimpanzee sanctuaries are under fire. Can a new science-based tool improve ape welfare? *Science*, December 2, 2020. Available at: https://www.sciencemag.org/news/2020/12/chimpanzee-sanctuaries-are-under-fire-can-new-science-based-tool-improve-ape-welfare.

Gruen, L. (2015). *Entangled Empathy: An Alternative Ethic for our Relationships with Animals.* Brooklyn, NY: Lantern Books.

Gruen, L. (2018). More risky than radical. *American Journal of Bioethics*, **18**(10), 45–7. DOI: 10.1080/15265161.2018.1513606.

Gruen, L., Fultz, A. and Pruetz, J. (2013). Ethical issues in African great ape field studies. *Institute for Laboratory Animal Research (ILAR) Journal*, **54**(1), 24–32. DOI: 10.1093/ilar/ilt016.

Gruen, L., Jamieson, D. and Schlottmann, C. (2012). *Reflecting on Nature: Readings in Environmental Ethics and Philosophy*, 2nd edn. New York, NY: Oxford University Press.

Grunert, K.G., Hieke, S. and Wills, J. (2014). Sustainability labels on food products: consumer motivation, understanding and use. *Food Policy*, **44**, 177–89. DOI: 10.1016/j.foodpol.2013.12.001.

Grützmacher, K.S., Karesh, W.B., Amuasi, J.H., *et al.* (2021). The Berlin principles on one health: bridging global health and conservation. *Science of The Total Environment*, **764**, 142919. DOI: 10.1016/j.scitotenv.2020.142919.

Grützmacher, K.S., Keil, V., Leinert, V., *et al.* (2018a). Human quarantine: toward reducing infectious pressure on chimpanzees at the Taï Chimpanzee Project, Côte d'Ivoire. *American Journal of Primatology*, **80**(1), e22619. DOI: 10.1002/ajp.22619.

Grützmacher, K.S., Keil, V., Metzger, S., *et al.* (2018b). Human respiratory syncytial virus and *Streptococcus pneumoniae* infection in wild bonobos. *EcoHealth*, **15**(2), 462–6. DOI: 10.1007/s10393-018-1319-4.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 15 Nov 2026 at 20:46:16, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781009071727.013

Grützmacher, K.S., Köndgen, S., Keil, V., *et al.* (2016). Codetection of respiratory syncytial virus in habituated wild western lowland gorillas and humans during a respiratory disease outbreak. *EcoHealth*, **13**(3), 499–510. DOI: 10.1007/s10393-016-1144-6.

Gryseels, S., Watts, T.D., Kabongo, J.-M.M., *et al.* (2019). A near-full-length HIV-1 genome from 1966 recovered from formalin-fixed paraffin-embedded tissue. *bioRxiv*, 687863. DOI: 10.1101/687863; t.

Guagliardo, S.A.J., Monroe, B.P., Moundjoa, C., *et al.* (2020). Asymptomatic orthopoxvirus circulation in humans in the wake of a monkeypox outbreak among chimpanzees in Cameroon. *American Journal of Tropical Medicine and Hygiene*, **102**(1), 206–12. DOI: 10.4269/ajtmh.19-0467.

Guarino, B. (2016). North Korea's newest zoo attraction is a chimpanzee trained to smoke cigarettes. *The Washington Post*, October 21, 2016. Available at: https://www.4apes.com/news/item/1538-https-www-washingtonpost-com-news-morning-mix-wp-2016-10-21-north-koreas-newest-zoo-attraction-is-a-chimpanzee-trained-to-smoke-cigarettes.

Guatelli-Steinberg, D. (2000). Linear enamel hypoplasia in gibbons (*Hylobates lar carpenteri*). *American Journal of Physical Anthropology*, **112**(3), 395–410. DOI: 10.1002/1096-8644(200007)112:3<395::AID-AJPA9>3.0.CO;2-H.

Guatelli-Steinberg, D., Ferrell, R.J. and Spence, J.M. (2012). Linear enamel hypoplasia as an indicator of physiological stress in great apes: reviewing the evidence in light of enamel growth variation. *American Journal of Physical Anthropology*, **148**(2), 191–204.

Guatelli-Steinberg, D. and Skinner, M.F. (2000). Prevalence and etiology of linear enamel hypoplasia in monkeys and apes from Asia and Africa. *Folia Primatologica*, **71**(3), 115–32. DOI: 10.1159/000021740.

Guerrera, W., Sleeman, J.M., Jasper, S.B., *et al.* (2003). Medical survey of the local human population to determine possible health risks to the mountain gorillas of Bwindi Impenetrable Forest National Park, Uganda. *International Journal of Primatology*, **24**(1), 197–207. DOI: 10.1023/A:1021410931928.

Guimarães, V.Y., Justo, A.A., Martins, L.L., Catão-Dias, J.L. and Sacristán, C. (2020). Emerging coronaviruses in Neotropical primates: a new threat? *Revista de Ciência Veterinária e Saúde Pública*, **7**(1). DOI: 10.4025/revcivet.v7i1.55490.

Guo, Y.-R., Cao, Q.-D., Hong, Z.-S., *et al.* (2020). The origin, transmission and clinical therapies on coronavirus disease 2019 (COVID-19) outbreak: an update on the status. *Military Medical Research*, **7**(1), 11. DOI: 10.1186/s40779-020-00240-0.

Gut Aiderbichl (n.d.). *Schimpansen.* Salzburg, Germany: Gut AIderbichl GmbH. Available at: https://www.gut-aiderbichl.com/tiere/unseretiereo/schimpansen/. Accessed: December, 2020.

Guy, A.J., Curnoe, D. and Banks, P.B. (2014). Welfare based primate rehabilitation as a potential conservation strategy: does it measure up? *Primates*, **55**(1), 139–47. DOI: 10.1007/s10329-013-0386-y.

Guyson, N. (2021). Lockdown underscores Uganda's overreliance on tourism to fund conservation. *Mongabay Series: Great Apes*, December 21, 2021. Available at: https://news.mongabay.com/2021/12/lockdown-underscores-ugandas-overreliance-on-tourism-to-fund-conservation/.

GVTC (2020). *Regional EVD and COVID-19 Contingency Plans for Mountain Gorillas.* Kigali, Rwanda: Greater Virunga Transboundary Collaboration (GVTC). Available at: https://pfbc-cbfp.org/actualites-partenaires/coll%C3%A8ge-multilat%C3%A9ral.html?file=files/docs/news/6-2020/Doc%202_GVTC%20Contingency%20Planning%20Overview.pdf.

Haberthur, K. and Messaoudi, I. (2013). Animal models of varicella zoster virus infection. *Pathogens*, **2**(2), 364–82. DOI: 10.3390/pathogens2020364.

Haggblade, M.K., Smith, W.A., Noheri, J.B., *et al.* (2019). Outcomes of snare-related injuries to endangered mountain gorillas (*Gorilla beringei beringei*) in Rwanda. *Journal of Wildlife Diseases*, **55**(2), 298–303, 6. DOI: 10.7589/2018-01-008.

Hahn, B.H., Shaw, G.M., De Cock, K.M. and Sharp, P.M. (2000). AIDS as a zoonosis: scientific and public health implications. *Science*, **287**(5453), 607–14. DOI: 10.1126/science.287.5453.607.

Halifax, J. (2011). The precious necessity of compassion. *Journal of Pain and Symptom Management*, **41**(1), 146–53. DOI: 10.1016/j.jpainsymman.2010.08.010.

Hall, C.M., Scott, D. and Gössling, S. (2020). Pandemics, transformations and tourism: be careful what you wish for. *Tourism Geographies*, **22**(3), 577–98. DOI: 10.1080/14616688.2020.1759131.

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Hall, M.J., Ng, A., Ursano, R.J., *et al.* (2004). Psychological impact of the animal–human bond in disaster preparedness and response. *Journal of Psychiatric Practice*, **10**(6), 368–74.

Halter, C. (2018). Paul Richards and Esther Mokuwa on lessons learned during the Ebola epidemic. *KGOU*, March 16, 2018. Available at: https://www.kgou.org/post/paul-richards-and-esther-mokuwa-lessons-learned-during-ebola-epidemic.

Hamard, M., Cheyne, S.M. and Nijman, V. (2010). Vegetation correlates of gibbon density in the peat-swamp forest of the Sabangau catchment, Central Kalimantan, Indonesia. *American Journal of Primatology*, **72**(7), 607–16. DOI: 10.1002/ajp.20815.

Hamer, D.H. and Connor, B.A. (2004). Travel health knowledge, attitudes and practices among United States travelers. *Journal of Travel Medicine*, **11**(1), 23–6. DOI: 10.2310/7060.2004.13577.

Hampton, J.O., Jones, B. and McGreevy, P.D. (2020). Social license and animal welfare: developments from the past decade in Australia. *Animals*, **10**(12), 2237. DOI: 10.3390/ani10122237.

Han, X.Y., Seo, Y.H., Sizer, K.C., *et al.* (2008). A new *Mycobacterium* species causing diffuse lepromatous leprosy. *American Journal of Clinical Pathology*, **130**(6), 856–64. DOI: 10.1309/ajcpp72fjzzrrvmm.

Han, X.Y., Sizer, K.C., Thompson, E.J., *et al.* (2009). Comparative sequence analysis of *Mycobacterium leprae* and the new leprosy-causing *Mycobacterium lepromatosis*. *Journal of Bacteriology*, **191**(19), 6067–74. DOI: 10.1128/JB.00762-09.

Hanamura, S., Kiyono, M., Lukasik-Braum, M., *et al.* (2008). Chimpanzee deaths at Mahale caused by a flu-like disease. *Primates*, **49**(1), 77–80. DOI: 10.1007/s10329-007-0054-1.

Hanes, A., Kalema-Zikusoka, G., Svensson, M.S. and Hill, C.M. (2018). Assessment of health risks posed by tourists visiting mountain gorillas in Bwindi Impenetrable National Park, Uganda. *Primate Conservation*, **32**, 123–32.

Hannibal, D.L. and Guatelli-Steinberg, D. (2005). Linear enamel hypoplasia in the great apes: analysis by genus and locality. *American Journal of Physical Anthropology*, **127**(1), 13–25. DOI: 10.1002/ajpa.20141.

Hansen, B.K., Fultz, A.L., Hopper, L.M. and Ross, S.R. (2018). An evaluation of video cameras for collecting observational data on sanctuary-housed chimpanzees (*Pan troglodytes*). *Zoo Biology*, **37**(3), 156–61. DOI: 10.1002/zoo.21410.

Harcourt, A.H., Fossey, D. and Sabater-Pi, J. (1981). Demography of *Gorilla gorilla*. *Journal of Zoology*, **195**(2), 215–33. DOI: 10.1111/j.1469-7998.1981.tb03460.x.

Harcourt, A.H. and Greenberg, J. (2001). Do gorilla females join males to avoid infanticide? A quantitative model. *Animal Behaviour*, **62**(5), 905–15. DOI: 10.1006/anbe.2001.1835.

Harcourt, A.H. and Stewart, K.J. (2007). *Gorilla Society: Conflict, Compromise, and Cooperation Between the Sexes*. Chicago, IL: University of Chicago Press. DOI: 10.7208/chicago/9780226316048.001.0001.

Hardgrove, E.H., Zimmerman, D.M., von Fricken, M.E. and Deem, S.L. (2021). A scoping review of rodent-borne pathogen presence, exposure, and transmission at zoological institutions. *Preventive Veterinary Medicine*, **193**, 105345. DOI: 10.1016/j.prevetmed.2021.105345.

Harper, K.N. and Knauf, S. (2013). *Treponema pallidum* infection in primates: clinical manifestations, epidemiology, and evolution of a stealthy pathogen. In *Primates, Pathogens, and Evolution*, ed. J. F. Brinkworth and K. Pechenkina. New York, NY: Springer, pp. 189–219.

Harrington, L.A., Moehrenschlager, A., Gelling, M., *et al.* (2013). Conflicting and complementary ethics of animal welfare considerations in reintroductions. *Conservation Biology*, **27**(3), 486–500. DOI: 10.1111/cobi.12021.

Harris, D.J., Ebika, S.T.N., Sanz, C.M., Madingou, M.P.N. and Morgan, D.B. (2021). Large trees in tropical rain forests require big plots. *Plants People Planet*, **3**(3), 282–94. DOI: 10.1002/ppp3.10194.

Harrison, M., Baker, J., Twinamatsiko, M. and Milner-Gulland, E.J. (2015). Profiling unauthorized natural resource users for better targeting of conservation interventions. *Conservation Biology*, **29**(6), 1636–46. DOI: 10.1111/cobi.12575.

Harrison, M.E., Cheyne, S.M., Sulistiyanto, Y. and Rieley, J.O. (2007). Biological effects of smoke from dry-season fires in non-burnt areas of the Sabangau peat swamp forest, Central Kalimantan, Indonesia. In *Carbon–Climate–Human Interaction on Tropical Peatland: Proceedings of the International Symposium and Workshop on Tropical Peatland, Yogyakarta, August 27–29, 2007. EU CARBOPEAT and RESTOPEAT Partnership*, ed. J. O. Rieley, C. J. Banks and G. Radjaguk. Sleman, Indonesia, and Leicester, UK: Gadjah Mada University, University of Leicester, pp. 1–5.

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Harrison, M.E., Ottay, J.B., D'Arcy, L.J., *et al.* (2020a). Tropical forest and peatland conservation in Indonesia: challenges and directions. *People and Nature*, **2**(1), 4–28. DOI: 10.1002/pan3.10060.

Harrison, M.E., Wijedasa, L.S., Cole, L.E.S., *et al.* (2020b). Tropical peatlands and their conservation are important in the context of COVID-19 and potential future (zoonotic) disease pandemics. *PeerJ*, **8**, e10283. DOI: 10.7717/peerj.10283.

Hartel, J.A., Otali, E., Machanda, Z., *et al.* (2020). Holistic approach for conservation of chimpanzees in Kibale National Park, Uganda. In *Chimpanzees in Context: A Comparative Perspective on Chimpanzee Behavior, Cognition, Conservation, and Welfare*, ed. L. M. Hopper and S. R. Ross. Chicago, IL: University of Chicago Press, pp. 612–43. DOI: 10.7208/chicago/9780226728032.003.0026.

Hasegawa, H. and Udono, T. (2007). Chimpanzee pinworm, *Enterobius anthropopitheci* (Nematoda: Oxyuridae), maintained for more than twenty years in captive chimpanzees in Japan. *Journal of Parasitology*, **93**(4), 850–3.

Hashimoto, C. (1997). Context and development of sexual behavior of wild bonobos (*Pan paniscus*) at Wamba, Zaire. *International Journal of Primatology*, **18**(1), 1–21. DOI: 10.1023/A:1026384922066.

Hashimoto, C. (1999). Snare injuries of chimpanzees in the Kalinzu Forest, Uganda. *Pan Africa News*, **6**(2), 20–2.

Häsler, B., Cornelsen, L., Bennani, H. and Rushton, J. (2014). A review of the metrics for One Health benefits. *Revue Scientifique et Technique de l'Office International des Épizooties*, **33**(2), 453–64. DOI: 10.20506/rst.33.2.2294.

Hassan, K.H. (2016). Ensuring animal welfare in zoos? Operations: a comparative note on Malaysian and Japanese legislation. *Mediterranean Journal of Social Sciences*, **7**(1), 328. DOI: 10.5901/mjss.2016.v7n1p328.

Hassell, J.M., Zimmerman, D., Cranfield, M.R., *et al.* (2017). Morbidity and mortality in infant mountain gorillas (*Gorilla beringei beringei*): a 46-year retrospective review. *American Journal of Primatology*, **79**(10), e22686. DOI: 10.1002/ajp.22686.

Haurez, B., Daïnou, K., Tagg, N., Petre, C.-A. and Doucet, J.-L. (2015). The role of great apes in seed dispersal of the tropical forest tree species *Dacryodes normandii* (Burseraceae) in Gabon. *Journal of Tropical Ecology*, **31**(5), 395–402. DOI: 10.1017/S0266467415000322.

Haurez, B., Daïnou, K., Vermeulen, C., *et al.* (2017). A look at intact forest landscapes (IFLs) and their relevance in Central African forest policy. *Forest Policy and Economics*, **80**, 192–9. DOI: 10.1016/j.forpol.2017.03.021.

Hawkins, S.J., Struthers, J.D., Phair, K.A., *et al.* (2021). Diagnostic evaluation of fatal *Balamuthia mandrillaris meningoencephalitis* in a captive Bornean orangutan (*Pongo pygmaeus*) with identification of potential environmental source and evidence of chronic exposure. *Primates*, **62**(1), 51–61. DOI: 10.1007/s10329-020-00860-z.

He, B., Feng, Y., Zhang, H., *et al.* (2015). Filovirus RNA in fruit bats, China. *Emerging Infectious Diseases*, **21**(9), 1675–7. DOI: 10.3201/eid2109.150260.

Head, J.S., Boesch, C., Makaga, L. and Robbins, M.M. (2011). Sympatric chimpanzees (*Pan troglodytes troglodytes*) and gorillas (*Gorilla gorilla gorilla*) in Loango National Park, Gabon: dietary composition, seasonality, and intersite comparisons. *International Journal of Primatology*, **32**(3), 755–75. DOI: 10.1007/s10764-011-9499-6.

Head, J.S., Boesch, C., Robbins, M.M., *et al.* (2013). Effective sociodemographic population assessment of elusive species in ecology and conservation management. *Ecology and Evolution*, **3**(9), 2903–16. DOI: 10.1002/ece3.670.

Heinicke, S., Mundry, R., Boesch, C., *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**(6), 064001. DOI: 10.1088/1748-9326/ab1379.

Heldstab, A., Rüedi, D., Sonnabend, W.F. and Deinhardt, F. (1981). Spontaneous generalized herpesvirus hominis infection of a lowland gorilla (*Gorilla gorilla gorilla*). *Journal of Medical Primatology*, **10**(2–3), 129–35. DOI: 10.1159/000460063.

HELP Congo (n.d.). *Parrainage*. Lissieu, France: HELP Congo. Available at: http://www.help-primates.org/fr/parrainage.html. Accessed: October, 2020.

Henao-Restrepo, A.M., Longini, I.M., Egger, M., *et al.* (2015). Efficacy and effectiveness of an rVSV-vectored vaccine expressing Ebola surface glycoprotein: interim results from the Guinea ring vaccination cluster-randomised trial. *The Lancet*, **386**(9996), 857–66. DOI: 10.1016/s0140-6736(15)61117-5.

Henseler, M., Maisonnave, H. and Maskaeva, A. (2022). Economic impacts of COVID-19 on the tourism sector in Tanzania. *Annals of Tourism Research Empirical Insights*, **3**(1), 100042. DOI: 10.1016/j.annale.2022.100042.

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Herbinger, I., Boesch, C. and Rothe, H. (2001). Territory characteristics among three neighboring chimpanzee communities in the Taï National Park, Côte d'Ivoire. *International Journal of Primatology*, **22**(2), 143–67. DOI: 10.1023/a:1005663212997.

Hernandez, E., Fawcett, A., Brouwer, E., Rau, J. and Turner, P.V. (2018). Speaking up: veterinary ethical responsibilities and animal welfare issues in everyday practice. *Animals*, **8**(1), 15. DOI: 10.3390/ani8010015.

Hernández, P., Gangsei, D. and Engstrom, D. (2007). Vicarious resilience: a new concept in work with those who survive trauma. *Family Process*, **46**(2), 229–41. DOI: 10.1111/j.1545-5300.2007.00206.x.

Herrera, J. and Nunn, C.L. (2019). Behavioural ecology and infectious disease: implications for conservation of biodiversity. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **374**(1781), 20180054. DOI: 10.1098/rstb.2018.0054.

Hewitt, G., MacLarnon, A. and Jones, K.E. (2002). The functions of laryngeal air sacs in primates: a new hypothesis. *Folia Primatologica*, **73**, 70–94.

HHS (2012). *Emergency Management and the Incident Command System.* Washington DC: United States Department of Health and Human Services (HHS).

Hickel, J. (2019). Is it possible to achieve a good life for all within planetary boundaries? *Third World Quarterly*, **40**(1), 18–35. DOI: 10.1080/01436597.2018.1535895.

Hickey, J.R., Basabose, A., Gilardi, K.V., *et al.* (2020). Gorilla beringei *ssp.* beringei *(amended version of 2018 assessment). The IUCN Red List of Threatened Species 2020: e.T39999A176396749.* Gland, Switzerland: International Union for Conservation of Nature (IUCN). DOI: 10.2305/IUCN.UK.2020-3.RLTS.T39999A176396749.en.

Hickey, J.R., Granjon, A.-C., Vigilant, L., *et al.* (2019a). *Virunga 2015–2016 Surveys: Monitoring Mountain Gorillas, Other Select Mammals, and Illegal Activities.* Kigali, Rwanda: GVTC, IGCP & Partners. Available at: http://igcp.org/wp-content/uploads/Virunga-Census-2015-2016-Final-Report-2019-with-French-summary-2019_04_24.pdf.

Hickey, J.R., Uzabaho, E., Akantorana, M., *et al.* (2019b). *Bwindi-Sarambwe 2018 Surveys: Monitoring Mountain Gorillas, Other Select Mammals, and Human Activities*. Unpublished report to Uganda Wildlife Authority. Kampala, Uganda: GVTC, IGCP & Partners. Available at: http://ir.must.ac.ug/handle/123456789/762.

Highland Farm (n.d.). *Gibbons in Need.* GoFundMe. Available at: https://www.gofundme.com/f/gibbons-in-need. Accessed: October, 2020.

HiH (n.d.). *Health in Harmony is a Climate Solution.* Portland, OR: Health in Harmony (HiH). Available at: https://healthinharmony.org/. Accessed: November, 2021.

Hill, S.P. and Broom, D.M. (2009). Measuring zoo animal welfare: theory and practice. *Zoo Biology*, **28**(6), 531–44. DOI: 10.1002/zoo.20276.

Hilser, H. (2011). *An assessment of primate health in the Sabangau peat-swamp forest, Central Kalimantan, Indonesian Borneo.* MSc thesis. Oxford, UK: Oxford Brookes University.

Himalayan News Service (2009). Central Zoo bans plastic bags. *The Himalayan*, June 6, 2009. Available at: https://thehimalayantimes.com/nepal/central-zoo-bans-plastic-bags.

Hing, S., Narayan, E.J., Thompson, R.C.A. and Godfrey, S.S. (2016). The relationship between physiological stress and wildlife disease: consequences for health and conservation. *Wildlife Research*, **43**(1), 51–60. DOI: 10.1071/WR15183.

Hingham, J.E.S. (2007). *Critical Issues in Ecotourism: Understanding a Complex Tourism Phenomenon.* Oxford, UK: Butterworth-Heinemann.

Hirata, S., Morimura, N., Watanuki, K., Ross, S.R. and Goodall, J. (2020). The establishment of sanctuaries for former laboratory chimpanzees: challenges, successes, and cross-cultural context. In *Chimpanzees in Context: A Comparative Perspective on Chimpanzee Behavior, Cognition, Conservation, and Welfare*, ed. L. M. Hopper and S. R. Ross. Chicago, IL: University of Chicago Press, pp. 208–32. DOI: 10.7208/chicago/9780226728032.003.0009.

Hobson, K. (2007). Political animals? On animals as subjects in an enlarged political geography. *Political Geography*, **26**(3), 250–67. DOI: 10.1016/j.polgeo.2006.10.010.

Hockings, K. and Humle, T. (2009). *Best Practice Guidelines for the Prevention and Mitigation of Conflict Between Humans and Great Apes.* Gland, Switzerland: International Union for Conservation of Nature (IUCN) Species Survival Commission (SSC) Primate Specialist Group (PSG). Available at: https://portals.iucn.org/library/efiles/documents/ssc-op-037.pdf.

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Hockings, K.J., McLennan, M.R., Carvalho, S., *et al.* (2015). Apes in the Anthropocene: flexibility and survival. *Trends in Ecology & Evolution*, **30**(4), 215–22. DOI: 10.1016/j.tree.2015.02.002.

Hockings, K.J., Mubemba, B., Avanzi, C., *et al.* (2021). Leprosy in wild chimpanzees. *Nature*, **598**(7882), 652–6. DOI: 10.1038/s41586-021-03968-4.

Hockings, K.J., Yamakoshi, G., Kabasawa, A. and Matsuzawa, T. (2010). Attacks on local persons by chimpanzees in Bossou, Republic of Guinea: long-term perspectives. *American Journal of Primatology*, **72**(10), 887–96. DOI: 10.1002/ajp.20784.

Hockings, M., Dudley, N., Elliott, W., *et al.* (2020). Editorial essay: COVID-19 and protected and conserved areas. *Parks,* **26**(1), 7–24.

Hoffmann, C., Zimmermann, F., Biek, R., *et al.* (2017). Persistent anthrax as a major driver of wildlife mortality in a tropical rainforest. *Nature*, **548**, 82–6. DOI: 10.1038/nature23309, https://www.nature.com/articles/nature23309#supplementary-information.

Hohmann, G., Robbins, M.M. and Boesch, C., ed. (2006). *Feeding Ecology in Apes and Other Primates: Ecological, Physiological, and Behavioural Aspects*. Cambridge Studies in Biological and Evolutionary Anthropology Volume 48. Cambridge, UK: Cambridge University Press.

Homsy, J. (1999). *Ape Tourism and Human Diseases: How Close Should We Get? A Critical Review of the Rules and Regulations Governing Park Management & Tourism for the Wild Mountain Gorilla,* Gorilla gorilla beringei. Nairobi, Kenya: Report of a Consultancy for the International Gorilla Conservation Programme.

Hooper, L.V., Littman, D.R. and Macpherson, A.J. (2012). Interactions between the microbiota and the immune system. *Science*, **336**(6086), 1268–73. DOI: 10.1126/science.1223490.

Hopper, L.M. and Ross, S.R., ed. (2020). *Chimpanzees in Context: A Comparative Perspective on Chimpanzee Behavior, Cognition, Conservation, and Welfare*. Chicago, IL: University of Chicago Press. DOI: 10.7208/chicago/9780226728032.001.0001.

Horvath, L.L., Murray, C.K. and DuPont, H.L. (2003). Travel health information at commercial travel websites. *Journal of Travel Medicine*, **10**(5), 272–9. DOI: 10.2310/7060.2003.2699.

Hosey, G. (2008). A preliminary model of human–animal relationships in the zoo. *Applied Animal Behaviour Science*, **109**(2), 105–27. DOI: 10.1016/j.applanim.2007.04.013.

Hosey, G.R. and Druck, P.L. (1987). The influence of zoo visitors on the behaviour of captive primates. *Applied Animal Behaviour Science*, **18**(1), 19–29. DOI: 10.1016/0168-1591(87)90251-6.

Hosey, G., Melfi, V. and Pankhurst, S. (2013). *Zoo Animals: Behaviour, Management, and Welfare.* Oxford, UK: Oxford University Press.

Hosey, G., Melfi, V. and Ward, S.J. (2020). Problematic animals in the zoo: the issue of charismatic megafauna. In *Problematic Wildlife II: New Conservation and Management Challenges in the Human–Wildlife Interactions*, ed. F. M. Angelici and L. Rossi. Cham, Switzerland: Springer International Publishing, pp. 485–508. DOI: 10.1007/978-3-030-42335-3_15.

Hrdy, S.B. (1979). Infanticide among animals: a review, classification, and examination of the implications for the reproductive strategies of females. *Ethology and Sociobiology*, **1**(1), 13–40. DOI: 10.1016/0162-3095(79)90004-9.

Hsu, C.-C. and Sandford, B.A. (2007). The Delphi technique: making sense of consensus. *Practical Assessment, Research, and Evaluation*, **12**, 10. DOI: 10.7275/pdz9-th90.

Hu, N., Guan, Z., Huang, B., *et al.* (2018). Dispersal and female philopatry in a long-term, stable, polygynous gibbon population: evidence from 16 years field observation and genetics. *American Journal of Primatology*, **80**(9), e22922. DOI: 10.1002/ajp.22922.

Hu, T., Chitnis, N., Monos, D. and Dinh, A. (2021). Next-generation sequencing technologies: an overview. *Human Immunology*, **82**(11), 801–11. DOI: 10.1016/j.humimm.2021.02.012.

Hubálek, Z. (2003). Emerging human infectious diseases: anthroponoses, zoonoses, and sapronoses. *Emerging Infectious Diseases*, **9**(3), 403–4.

Hughes, A.C. (2019). Understanding and minimizing environmental impacts of the Belt and Road Initiative. *Conservation Biology*, **33**(4), 883–94. DOI: 10.1111/cobi.13317.

Humle, T. (2015). *The Dimensions of Ape–Human Interactions in Industrial Agricultural Landscapes. Background Paper for State of the Apes: Industrial Agriculture and Ape Conservation. Arcus Foundation.* Cambridge, UK:

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Cambridge University Press. Available at: http://www.stateoftheapes.com/wp-content/uploads/2016/03/Ape–Human-Interactions-in-Industrial-Agricultural-Landscapes.pdf.

Humle, T., Boesch, C., Campbell, G., *et al*. (2016a). Pan troglodytes *ssp.* verus *(errata version published in 2016). The IUCN Red List of Threatened Species 2016: e.T15935A102327574*. Gland, Switzerland: International Union for Conservation of Nature (IUCN). DOI: 10.2305/IUCN.UK.2016-2.RLTS.T15935A17989872.en.

Humle, T., Colin, C., Laurans, M. and Raballand, E. (2011). Group release of sanctuary chimpanzees (*Pan troglodytes*) in the Haut Niger National Park, Guinea, west Africa: ranging patterns and lessons so far. *International Journal of Primatology*, **32**(2), 456–73. DOI: 10.1007/s10764-010-9482-7.

Humle, T. and Hill, C. (2016). People–primate interactions: implications for primate conservation. In *Introduction to Primate Conservation*, ed. S. A. Wich and A. J. Marshall. Oxford, UK: Oxford University Press, pp. 219–40.

Humle, T., Maisels, F., Oates, J.F., Plumptre, A. and Williamson, E.A. (2016b). Pan troglodytes *(errata version published in 2018). The IUCN Red List of Threatened Species 2016: e.T15933A129038584*. Gland, Switzerland: International Union for Conservation of Nature (IUCN). DOI: 10.2305/IUCN.UK.2016-2.RLTS.T15933A17964454.en.

Hursthouse, R. (2011). Virtue ethics and the treatment of animals. In *The Oxford Handbook of Animal Ethics*, ed. T. L. Beauchamp and R. G. Frey. Oxford, UK: Oxford University Press, pp. 119–43. DOI: 10.1093/oxfordhb/9780195371963.013.0005.

Hutchins, M., Foose, T. and Seal, U.S. (1991). The role of veterinary medicine in endangered species conservation. *Journal of Zoo and Wildlife Medicine*, **22**(3), 277–81.

Huynh, D.V., Truong, T.T.K., Duong, L.H., *et al*. (2021). The COVID-19 pandemic and its impacts on tourism business in a developing city: insight from Vietnam. *Economies*, **9**(4), 172. DOI: 10.3390/economies9040172.

Hvenegaard, G.T. (2014). Economic aspects of primate tourism associated with primate conservation. In *Primate Tourism: A Tool for Conservation?*, ed. A. E. Russon and J. Wallis. Cambridge, UK: Cambridge University Press, pp. 259–77. DOI: 10.1017/CBO9781139087407.020.

Hyeroba, D., Apell, P. and Otali, E. (2011). Managing a speared alpha male chimpanzee (*Pan troglodytes*) in Kibale National Park, Uganda. *Veterinary Record*, **169**(25), 658. DOI: 10.1136/vr.d4680.

ICCA Consortium (2021). *Territories of Life: 2021 Report*. ICCA Consortium. Available at: https://report.territoriesoflife.org/.

Idani, G. (1990). Relations between unit-groups of bonobos at Wamba, Zaire: encounters and temporary fusions. *African Study Monographs*, **11**, 153–86.

IFAW (2018). *Disrupt: Wildlife Cybercrime*. London, UK: International Fund for Animal Welfare (IFAW). Available at: https://www.ifaw.org/eu/resources/disrupt-wildlife-cybercrime.

IFC (2012). *Performance Standard 6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources*. Washington DC: International Finance Corporation (IFC), World Bank Group. Available at: https://www.ifc.org/wps/wcm/connect/Topics_Ext_Content/IFC_External_Corporate_Site/Sustainability-At-IFC/Policies-Standards/Performance-Standards/PS6.

IFC (2013). *Good Practice Handbook: Cumulative Impact Assessment and Management: Guidance for the Private Sector in Emerging Markets*. Washington DC: International Finance Corporation (IFC), World Bank Group. Available at: https://www.ifc.org/wps/wcm/connect/58fb524c-3f82-462b-918f-0ca1af135334/IFC_GoodPracticeHandbook_CumulativeImpactAssessment.pdf?MOD=AJPERES&CVID=kbnYgI5.

IFC (2019). *Guidance Note 6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources*. Washington DC: International Finance Corporation (IFC), World Bank Group. Available at: https://www.ifc.org/wps/wcm/connect/5e0f3c0c-0aa4-4290-a0f8-4490b61de245/GN6_English_June-27-2019.pdf?MOD=AJPERES&CVID=mRQjZva.

IFRC (2021). *Contingency Plan Guide*. Geneva, Switzerland: International Federation of Red Cross and Red Crescent Societies (IFRC). Available at: https://www.ifrc.org/document/contingency-planning-guide.

IGCP (n.d.). *Certified Gorilla Friendly TM*. Kigali, Rwanda: International Gorilla Conservation Programme (IGCP). Available at: https://igcp.org/tourism/certified-gorilla-friendly/. Accessed: April, 2022.

iHMP Research Network Consortium (2019). The Integrative Human Microbiome Project. *Nature*, **569**(7758), 641–8. DOI: 10.1038/s41586-019-1238-8.

ILRI [International Livestock Research Institute] (2019). *Meat: The Future Series. Options for the Livestock Sector in Developing and Emerging Economies to 2030 and Beyond*. Geneva, Switzerland: World Economic Forum.

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Imster, E. (2018). Wildfire smoke messing with orangutans' eating and sleep. *EarthSky*, June 3, 2018. Available at: https://earthsky.org/earth/wildfire-smoke-orangutan-health-threat/.

Inclean Magazine (2019). Zoos Victoria ban all single-use plastic bottles and straws. *Inclean Magazine*, May 1, 2019. Available at: https://incleanmag.com.au/zoos-victoria-ban-all-single-use-plastic/.

Ingram, J. (2020). Nutrition security is more than food security. *Nature Food*, **1**(1), 2. DOI: 10.1038/s43016-019-0002-4.

Inogwabini, B.I. and Leader-Williams, N. (2012). Effects of epidemic diseases on the distribution of bonobos. *PLoS ONE*, **7**(12), e51112.

Inoue, E., Tashiro, Y., Ogawa, H., *et al*. (2013). Gene flow and genetic diversity of chimpanzees in Tanzanian habitats. *Primate Conservation*, **26**(1), 67–74. DOI: 10.1896/052.026.0105.

International Animal Rescue (2020). *Report of the Trustees and Financial Statements for the Year Ended 31 December 2019*. Uckfield, UK: International Animal Rescue. Available at: https://register-of-charities.charitycommission.gov.uk/charity-search/-/charity-details/4029510/accounts-and-annual-returns.

IOC-UNESCO (n.d.). *Global Tsunami Early Warning and Mitigation Programme.* Paris, France: United Nations Educational, Scientific and Cultural Organization (UNESCO) Intergovernmental Oceanographic Commission (IOC). Available at: https://www.ioc.unesco.org/en/global-tsunami-early-warning-and-mitigation-programme. Accessed: October, 2022.

IPBES (2019). Nature's dangerous decline "unprecedented"; species extinction rates "accelerating". *IPBES* [Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services] *Media Release*, May 5, 2019. Available at: https://www.ipbes.net/news/Media-Release-Global-Assessment.

IPBES (2020). *Workshop Report on Biodiversity and Pandemics.* Bonn, Germany: Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES). DOI: 10.5281/zenodo.4147317.

IPCC (2023). *AR6 Synthesis Report Climate Change 2023.* Geneva, Switzerland: Intergovernmental Panel on Climate Change (IPCC). Available at: https://www.ipcc.ch/report/ar6/syr/.

IPPL (n.d.). *Our Gibbon Sanctuary.* Summerville, SC: International Primate Protection League (IPPL). Available at: https://www.ippl.org/gibbon/ippls-gibbon-sanctuary/. Accessed: October, 2020.

IRMA (2018). *IRMA Standard for Responsible Mining IRMA-STD-001.* Initiative for Responsible Mining Assurance (IRMA). Available at: https://responsiblemining.net/wp-content/uploads/2018/07/IRMA_STANDARD_v.1.0_FINAL_2018.pdf.

Isakov, A., O'Neal, P., Prescott, J., *et al*. (2014). Academic–community partnerships for sustainable preparedness and response systems. *American Journal of Disaster Medicine*, **9**(2), 97–106. DOI: 10.5055/ajdm.2014.0146.

Ishizuka, S., Toda, K. and Furuichi, T. (2020). Genetic analysis of migration pattern of female bonobos (*Pan paniscus*) among three neighboring groups. *International Journal of Primatology*, **41**, 401–14. DOI: 10.1007/s10764-019-00106-w.

IUCN (2012). *IUCN Red List Categories and Criteria, Version 3.1*, 2nd edn. Gland, Switzerland, and Cambridge, UK: International Union for Conservation of Nature (IUCN) Species Survival Commission (SSC). Available at: https://www.iucnredlist.org/resources/categories-and-criteria.

IUCN (2014). *Regional Action Plan for the Conservation of Western Lowland Gorillas and Central Chimpanzees 2015–2025.* Gland, Switzerland: International Union for Conservation of Nature (IUCN) Species Survival Commission (SSC) Primate Specialist Group (PSG). Available at: https://portals.iucn.org/library/node/45060.

IUCN (2019a). *Guidelines for the Management of Confiscated, Live Organisms.* Gland, Switzerland: International Union for Conservation of Nature (IUCN). Available at: https://portals.iucn.org/library/sites/library/files/documents/2019-005-En.pdf.

IUCN (2019b). *The IUCN Red List of Threatened Species. Version 2019-1.* Gland, Switzerland: International Union for Conservation of Nature (IUCN). Available at: https://www.iucnredlist.org.

IUCN (2020a). *Bwindi Impenetrable National Park: 2020 Conservation Outlook Assessment.* International Union for Conservation of Nature (IUCN) World Heritage Outlook. Available at: https://rris.biopama.org/node/20652?language=en.

IUCN (2020b). *Great Apes, COVID-19 and the SARS CoV-2: Joint Statement of the IUCN SSC Wildlife Health Specialist Group and the Primate Specialist Group, Section on Great Apes. March 15 2020.* Geneva, Switzerland: International Union for Conservation of Nature (IUCN). Available at: http://www.primate-sg.org/storage/SARSCoV-2.pdf.

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IUCN (2022). *The IUCN Red List of Threatened Species. Version 2022-1.* Gland, Switzerland: International Union for Conservation of Nature (IUCN). Available at: https://www.iucnredlist.org.

IUCN (2023). *The IUCN Red List of Threatened Species. Version 2022-2.* Gland, Switzerland: International Union for Conservation of Nature (IUCN). Available at: https://www.iucnredlist.org.

IUCN SSC Human–Wildlife Conflict & Coexistence Specialist Group (n.d.). *IUCN SSC Human–Wildlife Conflict & Coexistence Specialist Group.* International Union for Conservation of Nature (IUCN) Species Survival Commission (SSC). Available at: https://www.hwctf.org. Accessed: September, 2022.

IUCN SSC PSG (2020a). *COVID-19 and Great Apes: Advisory for Extractive Industry Personnel, Applicable to Energy, Extractives, Transport Infrastructure, Agro-Industry and Other Projects Operating in Great Ape Habitats.* International Union for Conservation of Nature (IUCN) Species Survival Commission (SSC) Primate Specialist Group (PSG). Available at: http://static1.1.sqspcdn.com/static/f/1200343/28297087/1589210933010/COVID-19_advisory_for_extractive_projects.pdf?token=vXaQFVpBmg%2FmT%2B8G%2F8vBcZ7OoQ8%3D.

IUCN SSC PSG (2020b). *Regional Action Plan for the Conservation of Western Chimpanzees (*Pan troglodytes verus*) 2020–2030.* Gland, Switzerland: International Union for Conservation of Nature (IUCN) Species Survival Commission (SSC) Primate Specialist Group (PSG). DOI: 10.2305/IUCN.CH.2020.SSC-RAP.2.en.

IUCN SSC PSG (n.d.). *SARS-CoV-2 & COVID-19.* Geneva, Switzerland: International Union for Conservation of Nature (IUCN) Species Survival Commission (SSC) Primate Specialist Group (PSG). Available at: http://www.primate-sg.org/covid-19. Accessed: March, 2022.

IUCN SSC PSG SGA (n.d.-a). *COVID-19 Resources.* International Union for Conservation of Nature (IUCN) Species Survival Commission (SSC) Primate Specialist Group (PSG) Section on Great Apes (SGA). Available at: https://www.iucngreatapes.org/covid-19. Accessed: September, 2022.

IUCN SSC PSG SGA (n.d.-b). *IUCN SSC A.P.E.S. Database.* International Union for Conservation of Nature (IUCN) Species Survival Commission (SSC) Primate Specialist Group (PSG) Section on Great Apes (SGA). Available at: https://www.iucngreatapes.org/apes-database. Accessed: January, 2023.

Ives, C.D. and Bekessy, S.A. (2015). The ethics of offsetting nature. *Frontiers in Ecology and the Environment*, **13**(10), 568–73. DOI: 10.1890/150021.

J.A.C.K. Sanctuary (n.d.). *J.A.C.K. Primate Rehabilitation Centre.* Lubumbashi, DRC: Jeunes Animaux Confisqués au Katanga (J.A.C.K.). Available at: http://www.jacksanctuary.org/. Accessed: October, 2020.

Jacob, S.T., Crozier, I., Fischer, W.A. II, *et al.* (2020). Ebola virus disease. *Nature Reviews Disease Primers*, **6**(1), 13. DOI: 10.1038/s41572-020-0147-3.

Jacobson, S.L., Ross, S.R. and Bloomsmith, M.A. (2016). Characterizing abnormal behavior in a large population of zoo-housed chimpanzees: prevalence and potential influencing factors. *PeerJ*, **4**, e2225. DOI: 10.7717/peerj.2225.

Jakob-Hoff, R.M., MacDiarmid, S.C., Lees, C., *et al.* (2014). *Manual of Procedures for Wildlife Disease Risk Analysis.* Paris, France: World Organisation for Animal Health (OIE), in association with the International Union for Conservation of Nature (IUCN) and the Species Survival Commission (SSC). Available at: https://portals.iucn.org/library/sites/library/files/documents/2014-007.pdf.

Jameton, A. (1984). *Nursing Practice: The Ethical Issues.* Englewood Cliffs, NJ: Prentice-Hall.

Jane Goodall Institute (n.d.). *Tchimpounga Chimpanzee Rehabilitation Centre.* Lymington, UK: The Jane Goodall Institute UK. Available at: https://www.janegoodall.co.uk/our-programmes/tchimpounga-chimpanzee-rehabilitation-centre. Accessed: October, 2020.

Janson, C.H. and Goldsmith, M.L. (1995). Predicting group size in primates: foraging costs and predation risks. *Behavioral Ecology*, **6**(3), 326–36. DOI: 10.1093/beheco/6.3.326.

Jayme, S.I., Field, H.E., de Jong, C.E., *et al.* (2015). Molecular evidence of Ebola Reston virus infection in Philippine bats. *Virology Journal*, **12**(1), 107. DOI: 10.1186/s12985-015-0331-3.

Jean, S.M., Preuss, T.M., Sharma, P., *et al.* (2012). Cerebrovascular accident (stroke) in captive, group-housed, female chimpanzees. *Comparative Medicine*, **62**(4), 322–9.

JGI (n.d.). *Project Snare Removal.* Washington DC: Jane Goodall Institute (JGI). Available at: https://www.janegoodall.org/snare-removal-2/. Accessed: September, 2022.

Jim, C.Y. (1999). The forest fires in Indonesia 1997–98: possible causes and pervasive consequences. *Geography*, **84**(3), 251–60. DOI: http://www.jstor.org/stable/40573309.

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John, D.A. and Babu, G.R. (2021). Lessons from the aftermaths of green revolution on food system and health. *Frontiers in Sustainable Food Systems*, **5**. DOI: 10.3389/fsufs.2021.644559.

Johns, B.G. (1996). Responses of chimpanzees to habituation and tourism in the Kibale Forest, Uganda. *Biological Conservation*, **78**(3), 257–62. DOI: 10.1016/S0006-3207(96)00044-4.

Johnson, C.K., Hitchens, P.L., Pandit, P.S., *et al.* (2020). Global shifts in mammalian population trends reveal key predictors of virus spillover risk. *Proceedings of the Royal Society B: Biological Sciences*, **287**(1924), 20192736. DOI: 10.1098/rspb.2019.2736.

Johnson, D.F., Druce, J.D., Birch, C. and Grayson, M.L. (2009). A quantitative assessment of the efficacy of surgical and N95 masks to filter influenza virus in patients with acute influenza infection. *Clinical Infectious Diseases*, **49**(2), 275–7. DOI: 10.1086/600041.

Jones, I.J., MacDonald, A.J., Hopkins, S.R., *et al.* (2020). Improving rural health care reduces illegal logging and conserves carbon in a tropical forest. *Proceedings of the National Academy of Sciences*, **117**(45), 28515–24. DOI: 10.1073/pnas.2009240117.

Jones, K.E., Patel, N.G., Levy, M.A., *et al.* (2008). Global trends in emerging infectious diseases. *Nature*, **451**(7181), 990–3. DOI: 10.1038/nature06536.

Jones, R.C. and Greek, R. (2014). A review of the Institute of Medicine's analysis of using chimpanzees in biomedical research. *Science and Engineering Ethics*, **20**(2), 481–504. DOI: 10.1007/s11948-013-9442-7.

Jones, R.M. and Brosseau, L.M. (2015). Aerosol transmission of infectious disease. *Journal of Occupational and Environmental Medicine*, **57**(5), 501–8.

Jong, H.N. (2020). Indonesia forest fires push orangutans into starvation mode, study finds. *Mongabay*, January 24, 2020. Available at: https://news.mongabay.com/2020/01/indonesia-forest-fires-burning-orangutans-starvation-mode-borneo/.

Jong, H.N. (2022). Plantations threaten Indonesia's orangutans, but they're not oil palm. *Mongabay*, July 15, 2022. Available at: https://news.mongabay.com/2022/07/plantations-threaten-indonesias-orangutans-but-theyre-not-oil-palm/.

Joppa, L.N. (2015). Technology for nature conservation: an industry perspective. *Ambio*, **44**(4), 522–6. DOI: 10.1007/s13280-015-0702-4.

Juarez, C.P., Rotundo, M.A., Berg, W. and Fernández-Duque, E. (2011). Costs and benefits of radio-collaring on the behavior, demography, and conservation of owl monkeys (*Aotus azarai*) in Formosa, Argentina. *International Journal of Primatology*, **32**(1), 69–82. DOI: 10.1007/s10764-010-9437-z.

Junge, R.E., Gannon, F.H., Porton, I., McAlister, W.H. and Whyte, M.P. (2000). Management and prevention of vitamin D deficiency rickets in captive-born juvenile chimpanzees (*Pan troglodytes*). *Journal of Zoo and Wildlife Medicine*, **31**(3), 361–9.

Junker, J., Blake, S., Boesch, C., *et al.* (2012). Recent decline in suitable environmental conditions for African great apes. *Diversity and Distributions*, **18**(11), 1077–91. DOI: 10.1111/ddi.12005.

Junker, J., Kühl, H.S., Orth, L., *et al.* (2017). *Primate Conservation: Global Evidence for the Effects of Interventions.* Cambridge, UK: University of Cambridge. Available at: https://www.conservationevidence.com/synopsis/pdf/14.

Junker, J., Petrovan, S.O., Arroyo-RodrÍguez, V., *et al.* (2020). A severe lack of evidence limits effective conservation of the world's primates. *BioScience*, **70**(9), 794–803. DOI: 10.1093/biosci/biaa082.

Justice, W.S.M., O'Brien, M.F., Szyszka, O., *et al.* (2017). Adaptation of the animal welfare assessment grid (AWAG) for monitoring animal welfare in zoological collections. *Veterinary Record*, **181**(6), 143. DOI: 10.1136/vr.104309.

Kabano, P., Arinaitwe, J. and Robbins, M.M. (2014). A brief history of habituated gorillas in Bwindi Impenetrable National Park. *Gorilla Journal*, **48**, 7–10.

Kagan, R., Carter, S. and Allard, S. (2015). A universal animal welfare framework for zoos. *Journal of Applied Animal Welfare Science*, **18**(S1), S1–10. DOI: 10.1080/10888705.2015.1075830.

Kahn, M. (1992). The passive voice of science: language abuse in the wildlife profession. *The Trumpeter Journal of Ecosophy*, **9**(4), 152–4.

Kalan, A.K., Piel, A.K., Mundry, R., *et al.* (2016). Passive acoustic monitoring reveals group ranging and territory use: a case study of wild chimpanzees (*Pan troglodytes*). *Frontiers in Zoology*, **13**(1), 34. DOI: 10.1186/s12983-016-0167-8.

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Kalema-Zikusoka, G. and Byonanebye, J. (2019). Scaling up a one-health model of conservation through public health: experiences in Uganda and the Democratic Republic of the Congo. *The Lancet Global Health*, **7**, S34. DOI: 10.1016/S2214-109X(19)30119-6.

Kalema-Zikusoka, G., Kock, R.A. and Macfie, E.J. (2002). Scabies in free-ranging mountain gorillas (*Gorilla beringei beringei*) in Bwindi Impenetrable National Park, Uganda. *Veterinary Record*, **150**, 12–15.

Kalema-Zikusoka, G., Rubanga, S., Mutahunga, B. and Sadler, R. (2018). Prevention of *Cryptosporidium* and *Giardia* at the human/gorilla/livestock interface. *Frontiers in Public Health*, **6**. DOI: 10.3389/fpubh.2018.00364.

Kalema-Zikusoka, G., Rubanga, S., Ngabirano, A. and Zikusoka, L. (2021). Mitigating impacts of the COVID-19 pandemic on gorilla conservation: lessons from Bwindi Impenetrable Forest, Uganda. *Frontiers in Public Health*, **9**, December 14, 2018. DOI: 10.3389/fpubh.2021.655175.

Kalema-Zikusoka, G. and Rwego, I.B. (2016). Mountain gorillas, tourism, and conflicts with people living adjacent to Bwindi Impenetrable National Park. In *Tropical Conservation, Perspectives on Local and Global Priorities*, ed. A. Aguirre and R. Sukumar. Oxford, UK: Oxford University Press, pp. 136–9.

Kalter, S.S. (1989). Infectious diseases of nonhuman primates in a zoo setting. *Zoo Biology*, **8**(S1), 61–76. DOI: 10.1002/zoo.1430080508.

Kanamori, T., Kuze, N., Bernard, H., Malim, T.P. and Kohshima, S. (2012). Fatality of a wild Bornean orangutan (*Pongo pygmaeus morio*): behavior and death of a wounded juvenile in Danum Valley, North Borneo. *Primates*, **53**(3), 221–6. DOI: 10.1007/s10329-012-0297-3.

Kaplan, G. and Rogers, L.J. (2000). *The Orangutans: Their Evolution, Behaviour and Future.* Philadelphia, PA: Perseus Running Press.

Kappeler, P.M. and Watts, D.P. (2012). *Long-Term Field Studies of Primates.* Berlin, Germany: Springer-Verlag.

Karesh, W.B. and Cook, R.A. (2009). One world – one health. *Clinical Medicine*, **9**(3), 259–60. DOI: 10.7861/clinmedicine.9-3-259.

Karlsson, M. and Edvardsson Björnberg, K. (2021). Ethics and biodiversity offsetting. *Conservation Biology*, **35**(2), 578–86. DOI: 10.1111/cobi.13603.

Karokaro, A.S., Gokkon, B. and Suriyani, L.D. (2017). Indonesia is running out of places to put rescued animals. *Mongabay*, July 3, 2017. Available at: https://news.mongabay.com/2017/07/indonesia-is-running-out-of-places-to-put-rescued-animals/.

Kaur, T., Singh, J., Tong, S., *et al.* (2008). Descriptive epidemiology of fatal respiratory outbreaks and detection of a human-related metapneumovirus in wild chimpanzees (*Pan troglodytes*) at Mahale Mountains National Park, Western Tanzania. *American Journal of Primatology*, **70**(8), 755–65. DOI: 10.1002/ajp.20565.

Kavanagh, M. and Caldecott, J.O. (2013). Strategic guidelines for the translocation of primates and other animals. *The Raffles Bulletin of Zoology*, **29**, 203–9.

KCP (n.d.). *Kibale Chimpanzee Project: Research, Conservation, and Education. Veterinary Intervention.* Kibale Chimpanzee Project (KCP). Available at: https://kibalechimpanzees.wordpress.com/veterinary-intervention/. Accessed: August, 2022.

Keele, B.F., Jones, J.H., Terio, K.A., *et al.* (2009). Increased mortality and AIDS-like immunopathology in wild chimpanzees infected with SIVcpz. *Nature*, **460**(7254), 515–19. DOI: 10.1038/nature08200.

Keele, B.F., Van Heuverswyn, F., Li, Y., *et al.* (2006). Chimpanzee reservoirs of pandemic and nonpandemic HIV-1. *Science*, **313**(5786), 523–6.

Keesing, F., Belden, L.K., Daszak, P., *et al.* (2010). Impacts of biodiversity on the emergence and transmission of infectious diseases. *Nature*, **468**(7324), 647–52. DOI: 10.1038/nature09575.

Keita, M.B., Hamad, I. and Bittar, F. (2014). Looking in apes as a source of human pathogens. *Microbial Pathogenesis*, **77**, 149–54. DOI: 10.1016/j.micpath.2014.09.003.

Kelly, A., Osburn, B. and Salman, M. (2014). Veterinary medicine's increasing role in global health. *The Lancet Global Health*, **2**(7), e379–80. DOI: 10.1016/S2214-109X(14)70255-4.

Kelly, T.R., Machalaba, C., Karesh, W.B., *et al.* (2020). Implementing One Health approaches to confront emerging and re-emerging zoonotic disease threats: lessons from PREDICT. *One Health Outlook*, **2**(1), 1. DOI: 10.1186/s42522-019-0007-9.

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Kernbach, M., Ramsay, C., Rohr, J.R. and Martin, L.B. (2019). Eco-immunology: past, present, and future. In *Encyclopedia of Ecology*, 2nd edn, ed. B. Fath. Oxford, UK: Elsevier, pp. 64–71. DOI: 10.1016/B978-0-12-409548-9.10890-5.

Kik, M.J.L., Bos, J.H., Groen, J. and Dorrestein, G.M. (2005). Herpes simplex infection in a juvenile orangutan (*Pongo pygmaeus pygmaeus*). *Journal of Zoo and Wildlife Medicine*, **36**(1), 131–4.

Kilbourn, A.M., Bosi, E.J., Karesh, W.B., Landau, M. and Tambing, E. (1997). Disease evaluation of free-ranging orangutans (*Pongo pygmaeus pygmaeus*) in Sabah, Malaysia. Presented at: *Proceedings of the Annual American Association of Zoo Veterinarians Conference 1998, Houston, TX*. Jacksonville, FL: American Association of Zoo Veterinarians.

Kilbourn, A.M., Karesh, W.B., Wolfe, N.D., *et al.* (2003). Health evaluation of free-ranging and semi-captive orangutans (*Pongo pygmaeus pygmaeus*) in Sabah, Malaysia. *Journal of Wildlife Diseases*, **39**(1), 73–83. DOI: 10.7589/0090-3558-39.1.73.

Kimbrough, L. (2020). Around the world, a fire crisis flares up, fueled by human actions. *Mongabay*, September 4, 2020. Available at: https://news.mongabay.com/2020/09/around-the-world-a-fire-crisis-flares-up-fueled-by-human-actions/.

King, T., Chamberlan, C. and Courage, A. (2006). *Gorilla Reintroduction, Republic of Congo. A Report for the PASA/IUCN African Primate Reintroduction Workshop, 20–22 April 2006, Apeldoorn, the Netherlands.* Brazzaville, Republic of Congo: The John Aspinall Foundation. Available at: https://www.ppgcongo.org/reintrodution/ppg-congo-2006-gorilla-reintro-pasa-en.pdf.

King, T., Chamberlan, C. and Courage, A. (2012). Assessing initial reintroduction success in long-lived primates by quantifying survival, reproduction and dispersal parameters: western lowland gorillas (*Gorilla gorilla gorilla*) in Congo and Gabon. *International Journal of Primatology*, **33**(1), 134–49. DOI: 10.1007/s10764-011-9563-2.

Kiran, D., Sander, W.E. and Duncan, C. (2022). Empowering veterinarians to be planetary health stewards through policy and practice. *Frontiers in Veterinary Science*, **9**, 775411. DOI: 10.3389/fvets.2022.775411.

Kirby, J.N., Steindl, S.R. and Doty, J.R. (2017). Compassion as the highest ethic. In *Practitioner's Guide to Ethics and Mindfulness-Based Interventions*, ed. L. M. Monteiro, J. F. Compson and F. Musten. Cham, Switzerland: Springer International Publishing, pp. 253–77. DOI: 10.1007/978-3-319-64924-5_10.

Klailova, M., Casanova, C., Henschel, P., *et al.* (2013). Non-human predator interactions with wild great apes in Africa and the use of camera traps to study their dynamics. *Folia Primatologica*, **83**(3–6), 312–28. DOI: 10.1159/000342143.

Klee, S.R., Brzuszkiewicz, E.B., Nattermann, H., *et al.* (2010). The genome of a *Bacillus* isolate causing anthrax in chimpanzees combines chromosomal properties of *B. cereus* with *B. anthracis* virulence plasmids. *PLoS ONE*, **5**(7), e10986. DOI: 10.1371/journal.pone.0010986.

Kleinschmidt, L.M., Kinney, M.E. and Hanley, C.S. (2018). Treatment of disseminated *Strongyloides* spp. infection in an infant Sumatran orangutan (*Pongo abelii*). *Journal of Medical Primatology*, **47**(3), 201–4. DOI: 10.1111/jmp.12338.

Knauf, S., Gogarten, J.F., Schuenemann, V.J., *et al.* (2018). Nonhuman primates across sub-Saharan Africa are infected with the yaws bacterium *Treponema pallidum* subsp. *pertenue*. *Emerging Microbes & Infections*, **7**(1), 1–4. DOI: 10.1038/s41426-018-0156-4.

Knauf, S., Liu, H. and Harper, K.N. (2013). Treponemal infection in nonhuman primates as possible reservoir for human yaws. *Emerging Infectious Diseases*, **19**(12), 2058–60. DOI: 10.3201/eid1912.130863.

Knight, A. (2008). The beginning of the end for chimpanzee experiments? *Philosophy, Ethics, and Humanities in Medicine*, **3**(1), 16. DOI: 10.1186/1747-5341-3-16.

Knight, J. (2009). Making wildlife viewable: habituation and attraction. *Society & Animals*, **17**(2), 167–84. DOI: 10.1163/156853009X418091.

Knott, C.D. (1998). Orangutan in the wild. *National Geographic Magazine*, **2**(2), 30–57.

Knott, C.D. (2001). Female reproductive ecology of the apes: implications for human evolution. In *Reproductive Ecology and Human Evolution*, ed. P. T. Ellison. Hawthorne, NY: Walter de Gruyter, pp. 429–63. Available at: https://cherylknott.files.wordpress.com/2011/06/knott-2001-female-reproductive-ecology-of-the-apes.pdf.

Knott, C.D. (2005). Energetic responses to food availability in the great apes: implications for hominin evolution. In *Seasonality in Primates: Studies of Living and Extinct Human and Non-Human Primates*, ed. D. K. Brockman and C. P. van Schaik. New York, NY: Cambridge University Press, pp. 351–78.

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Knott, C.D., Beaudrot, L., Snaith, T.V., *et al.* (2008). Female–female competition in Bornean orangutans. *International Journal of Primatology*, **29**, 975–97.

Knott, C.D., Kane, E.E., Achmad, M., *et al.* (2021). The Gunung Palung Orangutan Project: twenty-five years at the intersection of research and conservation in a critical landscape in Indonesia. *Biological Conservation*, **255**, 108856. DOI: 10.1016/j.biocon.2020.108856.

Knott, C.D., Scott, A.M., O'Connell, C.A., *et al.* (2019). Possible male infanticide in wild orangutans and a re-evaluation of infanticide risk. *Scientific Reports*, **9**, 7806. DOI: 10.1038/s41598-019-42856-w.

Knott, K. (2021). Hong Kong's leading role in the global extinction crisis, as hub of illegal wildlife trade, and the legal amendment that could change that. *South China Morning Post, Lifestyle*, April 23, 2021. Available at: https://www.scmp.com/lifestyle/article/3130438/hong-kongs-leading-role-global-extinction-crisis-hub-illegal-wildlife.

Kock, R., Michel, A.L., Yeboah-Manu, D., *et al.* (2021). Zoonotic tuberculosis: the changing landscape. *International Journal of Infectious Diseases*, **113**(S1), S68–72. DOI: 10.1016/j.ijid.2021.02.091.

Kock, R.A., Woodford, M.H. and Rossiter, P.B. (2010). Disease risks associated with the translocation of wildlife. *Revue Scientifique et Technique de l'Office International des Épizooties*, **29**(2), 329–50. DOI: 10.20506/rst.29.2.1980.

Koeppel, L., Siems, T., Fischer, M. and Lentz, H.H.K. (2018). Automatic classification of farms and traders in the pig production chain. *Preventive Veterinary Medicine*, **150**, 86–92. DOI: 10.1016/j.prevetmed.2017.12.003.

Köndgen, S., Calvignac-Spencer, S., Grützmacher, K., *et al.* (2017). Evidence for human *Streptococcus pneumoniae* in wild and captive chimpanzees: a potential threat to wild populations. *Scientific Reports*, **7**, 14581. DOI: 10.1038/s41598-017-14769-z.

Köndgen, S., Kühl, H., N'Goran, P.K., *et al.* (2008). Pandemic human viruses cause decline of endangered great apes. *Current Biology*, **18**(4), 260–4. DOI: 10.1016/j.cub.2008.01.012.

Köndgen, S., Leider, M., Lankester, F., *et al.* (2011). *Pasteurella multocida* involved in respiratory disease of wild chimpanzees. *PLoS ONE*, **6**(9), e24236. DOI: 10.1371/journal.pone.0024236.

Köndgen, S., Schenk, S., Pauli, G., Boesch, C. and Leendertz, F.H. (2010). Noninvasive monitoring of respiratory viruses in wild chimpanzees. *EcoHealth*, **7**(3), 332–41. DOI: 10.1007/s10393-010-0340-z.

Kooriyama, T., Okamoto, M., Yoshida, T., *et al.* (2013). Epidemiological study of zoonoses derived from humans in captive chimpanzees. *Primates*, **54**(1), 89–98. DOI: 10.1007/s10329-012-0320-8.

Kormos, R., Boesch, C., Bakarr, M.I. and Butynski, T.M. (2003). *West African Chimpanzees: Status, Survey and Conservation Action Plan.* Gland, Switzerland: International Union for Conservation of Nature (IUCN) World Conservation Union. Available at: https://portals.iucn.org/library/sites/library/files/documents/2003-059.pdf.

Kormos, R., Kormos, C.F., Humle, T., *et al.* (2014). Great apes and biodiversity offset projects in Africa: the case for national offset strategies. *PLoS ONE*, **9**(11), e111671. DOI: 10.1371/journal.pone.0111671.

Köster, P.C., Lapuente, J., Cruz, I., Carmena, D. and Ponce-Gordo, F. (2022). Human-borne pathogens: are they threatening wild great ape populations? *Veterinary Sciences*, **9**(7), 356. DOI: 10.3390/vetsci9070356.

Kralik, P. and Ricchi, M. (2017). A basic guide to real time PCR in microbial diagnostics: definitions, parameters, and everything. *Frontiers in Microbiology*, **8**, 108. DOI: 10.3389/fmicb.2017.00108.

Krebs, B.L., Marrin, D., Phelps, A., Krol, L. and Watters, J.V. (2018). Managing aged animals in zoos to promote positive welfare: a review and future directions. *Animals*, **8**(7), 116. DOI: 10.3390/ani8070116.

Krief, S., Berny, P., Gumisiriza, F., *et al.* (2017). Agricultural expansion as risk to endangered wildlife: pesticide exposure in wild chimpanzees and baboons displaying facial dysplasia. *Science of The Total Environment*, **598**(4), 647–56. DOI: 10.1016/j.scitotenv.2017.04.113.

Krief, S., Escalante, A.A., Pacheco, M.A., *et al.* (2010). On the diversity of malaria parasites in African apes and the origin of *Plasmodium falciparum* from bonobos. *PLoS Pathogens*, **6**(2), e1000765. DOI: 10.1371/journal.ppat.1000765.

Krüger, O. (2005). The role of ecotourism in conservation: panacea or Pandora's box? *Biodiversity and Conservation*, **14**(3), 579–600. DOI: 10.1007/s10531-004-3917-4.

Kühl, H.S., Boesch, C., Kulik, L., *et al.* (2019). Human impact erodes chimpanzee behavioral diversity. *Science*, **363**(6434), 1453. DOI: 10.1126/science.aau4532.

Kühl, H.S., Sop, T., Williamson, E.A., *et al.* (2017). The critically endangered western chimpanzee declines by 80%. *American Journal of Primatology*, **79**(9), e22681. DOI: 10.1002/ajp.22681.

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Kühl, H., Williamson, L., Sanz, C., Morgan, D. and Boesch, C. (2007). Launch of the A.P.E.S. database. *Gorilla Journal*, **34**, 20–1.

Kuisma, E., Olson, S.H., Cameron, K.N., *et al.* (2019). Long-term wildlife mortality surveillance in northern Congo: a model for the detection of Ebola virus disease epizootics. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **374**(1782), 20180339. DOI: 10.1098/rstb.2018.0339.

Kumar, S., Fox, B., Owston, M., Hubbard, G.B. and Dick, E.J. Jr. (2012). Pathology of spontaneous air sacculitis in 37 baboons and seven chimpanzees and a brief review of the literature. *Journal of Medical Primatology*, **41**(4), 266–77. DOI: 10.1111/j.1600-0684.2012.00547.x.

Kumar, S., Laurence, H., Owston, M.A., *et al.* (2017). Natural pathology of the captive chimpanzee (*Pan troglodytes*): a 35-year review. *Journal of Medical Primatology*, **46**(5), 271–90. DOI: 10.1111/jmp.12277.

Kumareswaran, K. and Jayasinghe, G.Y. (2022). Systematic review on ensuring the global food security and covid-19 pandemic resilient food systems: towards accomplishing sustainable development goals targets. *Discover Sustainability*, **3**(1), 29. DOI: 10.1007/s43621-022-00096-5.

Kumm, H.W. and Turner, T.B. (1936). The transmission of yaws from man to rabbits by an insect vector, *Hippelates pallipes* Loew. *American Journal of Tropical Medicine and Hygiene*, **S1–16**(3), 245–71. DOI: 10.4269/ajtmh.1936.s1-16.245.

Kuze, N., Dellatore, D., Banes, G.L., *et al.* (2012). Factors affecting reproduction in rehabilitant female orangutans: young age at first birth and short inter-birth interval. *Primates*, **53**(2), 181–92. DOI: 10.1007/s10329-011-0285-z.

Labes, E.M., Hegglin, D., Grimm, F., *et al.* (2010). Intestinal parasites of endangered orangutans (*Pongo pygmaeus*) in Central and East Kalimantan, Borneo, Indonesia. *Parasitology*, **137**(1), 123–35. DOI: 10.1017/s0031182009991120.

Labes, E.M., Nurcahyo, W., Deplazes, P. and Mathis, A. (2011). Genetic characterization of *Strongyloides* spp. from captive, semi-captive and wild Bornean orangutans (*Pongo pygmaeus*) in Central and East Kalimantan, Borneo, Indonesia. *Parasitology*, **138**, 1417–22.

Lahm, S.A., Kombila, M., Swanepoel, R. and Barnes, R.F.W. (2007). Morbidity and mortality of wild animals in relation to outbreaks of Ebola haemorrhagic fever in Gabon, 1994–2003. *Transactions of the Royal Society of Tropical Medicine and Hygiene*, **101**(1), 64–78. DOI: 10.1016/j.trstmh.2006.07.002.

Lainé, N. and Morand, S. (2020). Linking humans, their animals, and the environment again: a decolonized and more-than-human approach to "One Health". *Parasite*, **27**, 55. DOI: 10.1051/parasite/2020055.

Lambeth, S.P., Bloomsmith, M.A. and Alford, P.L. (1997). Effects of human activity on chimpanzee wounding. *Zoo Biology*, **16**(4), 327–33. DOI: 10.1002/(SICI)1098-2361(1997)16:4<327::AID-ZOO4>3.0.CO;2-C.

Lammey, M.L., Baskin, G.B., Gigliotti, A.P., *et al.* (2008). Interstitial myocardial fibrosis in a captive chimpanzee (*Pan troglodytes*) population. *Comparative Medicine*, **58**(4), 389–94.

Landolfi, J.A., Wellehan, J.F., Johnson, A.J. and Kinsel, M.J. (2005). Fatal human herpesvirus type 1 infection in a white-handed gibbon (*Hylobates lar*). *Journal of Veterinary Diagnostic Investigation*, **17**(4), 369–71. DOI: 10.1177/104063870501700412.

Langford, D.J., Bailey, A.L., Chanda, M.L., *et al.* (2010). Coding of facial expressions of pain in the laboratory mouse. *Nature Methods*, **7**(6), 447–9. DOI: 10.1038/nmeth.1455.

Lankester, F., Mätz-Rensing, K., Kiyang, J., *et al.* (2008). Fatal ulcerative colitis in a western lowland gorilla (*Gorilla gorilla gorilla*). *Journal of Medical Primatology*, **37**(6), 297–302. DOI: 10.1111/j.1600-0684.2008.00287.x.

Lappan, S. (2008). Male care of infants in a siamang (*Symphalangus syndactylus*) population including socially monogamous and polyandrous groups. *Behavioral Ecology and Sociobiology*, **62**(8), 1307–17. DOI: 10.1007/s00265-008-0559-7.

Lappan, S. (2009). Flowers are an important food for small apes in southern Sumatra. *American Journal of Primatology*, **71**(8), 624–35. DOI: 10.1002/ajp.20691.

Lappan, S., Malaivijitnond, S., Radhakrishna, S., Riley, E.P. and Ruppert, N. (2020). The human–primate interface in the new normal: challenges and opportunities for primatologists in the COVID-19 era and beyond. *American Journal of Primatology*, **82**(8), e23176. DOI: 10.1002/ajp.23176.

Latip, N.A., Marzuki, A., Marcela, P. and Umar, M.U. (2015). The involvement of indigenous peoples in promoting conservation and sustainable tourism at Lower Kinabatangan Sabah: common issues and challenges. *Australian Journal of Basic and Applied Science*, **9**(7), 323–5.

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Laule, G.E., Bloomsmith, M.A. and Schapiro, S.J. (2003). The use of positive reinforcement training techniques to enhance the care, management, and welfare of primates in the laboratory. *Journal of Applied Animal Welfare Science*, **6**(3), 163–73. DOI: 10.1207/S15327604JAWS0603_02.

Laurance, W.F. (2013). Does research help to safeguard protected areas? *Trends in Ecology & Evolution*, **28**(5), 261–6. DOI: 10.1016/j.tree.2013.01.017.

Laurance, W.F., Croes, B.M., Tchignoumba, L., *et al.* (2006). Impacts of roads and hunting on central African rainforest mammals. *Conservation Biology*, **20**(4), 1251–61. DOI: 10.1111/j.1523-1739.2006.00420.x.

Laurance, W.F., Sloan, S., Weng, L. and Sayer, J.A. (2015). Estimating the environmental costs of Africa's massive "development corridors". *Current Biology*, **25**(24), 3202–8. DOI: 10.1016/j.cub.2015.10.046.

Laurance, W.F., Wich, S.A., Onrizal, O., *et al.* (2020). Tapanuli orangutan endangered by Sumatran hydropower scheme. *Nature Ecology & Evolution*, **4**(11), 1438–9. DOI: 10.1038/s41559-020-1263-x.

Laurence, H., Kumar, S., Owston, M.A., *et al.* (2017). Natural mortality and cause of death analysis of the captive chimpanzee (*Pan troglodytes*): a 35-year review. *Journal of Medical Primatology*, **46**(3), 106–15. DOI: 10.1111/jmp.12267.

Lavergne, A., Donato, D., Gessain, A., *et al.* (2014). African great apes are naturally infected with roseoloviruses closely related to human herpesvirus 7. *Journal of Virology*, **88**(22), 13212–20. DOI: 10.1128/jvi.01490-14.

Lawson, B., Garriga, R. and Galdikas, B.M. (2006). Airsacculitis in fourteen juvenile southern Bornean orangutans (*Pongo pygmaeus wurmbii*). *Journal of Medical Primatology*, **35**(3), 149–54. DOI: 10.1111/j.1600-0684.2006.00153.x.

Lécu, A. and Ball, R. (2011). Mycobacterial infections in zoo animals: relevance, diagnosis and management. *International Zoo Yearbook*, **45**(1), 183–202. DOI: 10.1111/j.1748-1090.2011.00141.x.

Ledger, E. (2020). Mountain gorillas face extinction due to threats of both coronavirus and poaching. *Independent*, August 20, 2020. Available at: https://www.independent.co.uk/news/world/coronavirus-mountain-gorillas-poaching-uganda-wildlife-crime-trade-a9633586.html.

Lee, A., Leong, M. and Dzar, A. (2020). Mariani Ramli's life mission to help gibbons sing again. *Malaysiakini*, June 8, 2020. Available at: https://www.malaysiakini.com/news/529224.

Lee, E.A.A. (2012). *Social interaction and occupational enrichment in captive Bonnet macaques (*Macaca radiata*)*. Undergraduate thesis. Serdang, Malaysia: Universiti Putra Malaysia.

Lee, K. and Brumme, Z.L. (2013). Operationalizing the One Health approach: the global governance challenges. *Health Policy and Planning*, **28**(7), 778–85. DOI: 10.1093/heapol/czs127.

Lee, R.V., Allan, W.P., Sidney, A., *et al.* (1990). Typhlitis due to *Balantidium coli* in captive lowland gorillas. *Reviews of Infectious Diseases*, **12**(6), 1052–9. DOI: 10.1093/clinids/12.6.1052.

Leeds, A., Elsner, R. and Lukas, K.E. (2016). The effect of positive reinforcement training on an adult female western lowland gorilla's (*Gorilla gorilla gorilla*) rate of abnormal and aggressive behavior. *Animal Behavior and Cognition*, **3**(2), 78–87.

Leempoel, K., Hebert, T. and Hadly, E.A. (2020). A comparison of eDNA to camera trapping for assessment of terrestrial mammal diversity. *Proceedings of the Royal Society B: Biological Sciences*, **287**(1918), 20192353. DOI: 10.1098/rspb.2019.2353.

Leendertz, F.H. and Kalema-Zikusoka, G. (2021). Vaccinate in biodiversity hotspots to protect people and wildlife from each other. *Nature*, **591**(7850), 369. DOI: 10.1038/d41586-021-00690-z.

Leendertz, F.H., Ellerbrok, H., Boesch, C., *et al.* (2004). Anthrax kills wild chimpanzees in a tropical rainforest. *Nature*, **430**(6998), 451–2. DOI: 10.1038/nature02722.

Leendertz, F.H., Lankester, F., Guislain, P., *et al.* (2006a). Anthrax in western and central African great apes. *American Journal of Primatology*, **68**(9), 928–33. DOI: 10.1002/ajp.20298.

Leendertz, F.H., Pauli, G., Maetz-Rensing, K., *et al.* (2006b). Pathogens as drivers of population declines: the importance of systematic monitoring in great apes and other threatened mammals. *Biological Conservation*, **131**(2), 325–37. DOI: 10.1016/j.biocon.2006.05.002.

Leendertz, S.A.J., Gogarten, J.F., Düx, A., Calvignac-Spencer, S. and Leendertz, F.H. (2016). Assessing the evidence supporting fruit bats as the primary reservoirs for Ebola viruses. *EcoHealth*, **13**(1), 18–25. DOI: 10.1007/s10393-015-1053-0.

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Leendertz, S.A.J., Locatelli, S., Boesch, C., *et al.* (2011). No evidence for transmission of SIVwrc from western red colobus monkeys (*Piliocolobus badius badius*) to wild West African chimpanzees (*Pan troglodytes verus*) despite high exposure through hunting. *BMC Microbiology*, **11**(1), 24. DOI: 10.1186/1471-2180-11-24.

Leendertz, S.A.J., Wich, S.A., Ancrenaz, M., *et al.* (2017). Ebola in great apes: current knowledge, possibilities for vaccination, and implications for conservation and human health. *Mammal Review*, **47**(2), 98–111. DOI: 10.1111/mam.12082.

Lehmann, J., Korstjens, A.H. and Dunbar, R.I.M. (2010). Apes in a changing world – the effects of global warming on the behaviour and distribution of African apes. *Journal of Biogeography*, **37**(12), 2217–31. DOI: 10.1111/j.1365-2699.2010.02373.x.

Leighton, D.S.R. (1987). Gibbons: territoriality and monogamy. In *Primate Societies*, ed. B. B. Smuts, D. L. Cheyney, R. M. Seyfarth, R. W. Wrangham and T. T. Struhsaker. Chicago, IL: University of Chicago Press, pp. 135–145.

Leighty, K.A., Valuska, A.J., Grand, A.P., *et al.* (2015). Impact of visual context on public perceptions of non-human primate performers. *PLoS ONE*, **10**(2), e0118487. DOI: 10.1371/journal.pone.0118487.

Lempena, J. and Sal, A. (2018). *Captive Care Standards. An Overview of Standards for the Keeping of Wild Animals in Captive Care Settings in Malawi.* Lilongwe, Malawi: Lilongwe Wildlife Trust.

Lerner, H. and Berg, C. (2017). A comparison of three holistic approaches to health: One health, ecohealth, and planetary health. *Frontiers in Veterinary Science*, **4**, September 29, 2017. DOI: 10.3389/fvets.2017.00163.

Leroy, E.M., Kumulungui, B., Pourrut, X., *et al.* (2005). Fruit bats as reservoirs of Ebola virus. *Nature*, **438**(7068), 575–6. DOI: 10.1038/438575a.

Leroy, E.M., Rouquet, P., Formenty, P., *et al.* (2004). Multiple *Ebola* virus transmission events and rapid decline of central African wildlife. *Science*, **303**(5656), 387–90. DOI: 10.1126/science.1092528.

Lestari, A. and Puspita Ayu, K. (2020). Engaging palm oil and hot spot area to mitigate forest fires. *BIO Web of Conferences*, **20**, 01003. DOI: 10.1051/bioconf/20202001003.

Lewis, B. and Nogueira, M. (2021). Timeline: The battle for Simandou. *MINING.COM*, January 22, 2021. Available at: https://www.mining.com/web/timeline-the-battle-for-simandou/.

Liberia Chimpanzee Rescue & Protection (n.d.). *LCRP's Sanctuary and Conservation Center.* Monrovia, Liberia: Liberia Chimpanzee Rescue and Protection. Available at: https://www.liberiachimpanzeerescue.org/our-home.html. Accessed: March, 2021.

Limbe Wildlife Center (2020). *Limbe Wildlife Centre Annual Report 2019.* Limbe, Republic of Cameroon: Limbe Wildlife Center. Available at: https://issuu.com/limbewildlife/docs/lwc_annualreport_2019.

Linden, B., Foord, S., Horta-Lacueva, Q.J.B. and Taylor, P.J. (2020). Bridging the gap: how to design canopy bridges for arboreal guenons to mitigate road collisions. *Biological Conservation*, **246**, 108560. DOI: 10.1016/j.biocon.2020.108560.

Lindshield, S., Bogart, S.L., Gueye, M., Ndiaye, P.I. and Pruetz, J.D. (2019). Informing protection efforts for critically endangered chimpanzees (*Pan troglodytes verus*) and sympatric mammals amidst rapid growth of extractive industries in Senegal. *Folia Primatologica*, **90**(2), 124–36. DOI: 10.1159/000496145.

Lindshield, S., Hernandez-Aguilar, R.A., Korstjens, A.H., *et al.* (2021). Chimpanzees (*Pan troglodytes*) in savanna landscapes. *Evolutionary Anthropology: Issues, News, and Reviews*, **30**(6), 399–420. DOI: 10.1002/evan.21924.

Liptovszky, M., Poitier, R., Redrobe, S., Schüle, A. and Steinmetz, H.W. (2019). *EAZA Great Ape TAG Veterinary Guidelines (July 2019).* Amsterdam, the Netherlands: European Association of Zoos and Aquaria (EAZA) Great Ape Taxon Advisory Group (TAG).

Listín Diario (2019). María y Linda, las chimpancés diferentes que llenan de emociones el zoológico Nacional. *Listín Diario YouTube*, December 26, 2019. Available at: https://www.youtube.com/watch?v=_UVi4ugqt30.

Liswanti, N., Indawan, A., Sumardjo, D. and Sheil, D. (2004). Persepsi Masyarakat Dayak Merap Dan Punan Tentang Pentingnya Hutan Di Lansekap Hutan Tropis, Kabupaten Malinau, Kalimantan Timur [Dayak Merap and Punan People's perception of the importance of forest in a tropical landscape, Malinau, East Kalimantan]. *Jurnal Manajemen Hutan Tropika*, **10**(2), 1–3.

Litchfield, C.A. (2008). Responsible tourism: a conservation tool or conservation threat? In *Conservation in the 21st Century: Gorillas as a Case Study*, ed. T. S. Stoinski, H. D. Steklis and P. T. Mehlman. Boston, MA: Springer, pp. 107–27. DOI: 10.1007/978-0-387-70721-1_4.

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Liu, W., Li, Y., Learn, G.H., *et al.* (2010). Origin of the human malaria parasite *Plasmodium falciparum* in gorillas. *Nature*, **467**(7314), 420–5. DOI: 10.1038/nature09442.

Lochmiller, R.L. (1996). Immunocompetence and animal population regulation. *Oikos*, **76**(3), 594–602. DOI: 10.2307/3546356.

Löhrich, T., Behringer, V., Wittig, R.M., Deschner, T. and Leendertz, F.H. (2018). The use of neopterin as a non-invasive marker in monitoring diseases in wild chimpanzees. *EcoHealth*, **15**(4), 792–803. DOI: 10.1007/s10393-018-1357-y.

Loken, B., Boer, C. and Kasyanto, N. (2015). Opportunistic behaviour or desperate measure? Logging impacts may only partially explain terrestriality in the Bornean orang-utan *Pongo pygmaeus morio*. *Oryx*, **49**(3), 461–4. DOI: 10.1017/S0030605314000969.

Loken, B., Spehar, S. and Rayadin, Y. (2013). Terrestriality in the Bornean orangutan (*Pongo pygmaeus morio*) and implications for their ecology and conservation. *American Journal of Primatology*, **75**(11), 1129–38. DOI: 10.1002/ajp.22174.

Long, K. and Robley, A. (2004). *Cost Effective Feral Animal Exclusion Fencing for Areas of High Conservation Value in Australia.* Canberra, Australia: Commonwealth of Australia. Available at: https://www.environment.gov.au/biodiversity/invasive-species/publications/cost-effective-feral-animal-exclusion-fencing.

Lonsdorf, E.V., Ross, S.R. and Matsuzawa, T. (2010). *The Mind of the Chimpanzee: Experimental and Ecological Perspectives.* Chicago, IL: University of Chicago Press.

Lonsdorf, E.V., Travis, D., Pusey, A.E. and Goodall, J. (2006). Using retrospective health data from the Gombe chimpanzee study to inform future monitoring efforts. *American Journal of Primatology*, **68**(9), 897–908. DOI: 10.1002/ajp.20296.

Lonsdorf, E.V., Travis, D.A., Raphael, J., *et al.* (2022). The Gombe Ecosystem Health Project: 16 years of program evolution and lessons learned. *American Journal of Primatology*, **84**(4–5), e23300. DOI: 10.1002/ajp.23300.

Lonsdorf, E.V., Travis, D., Ssuna, R., *et al.* (2014). Field immobilization for treatment of an unknown illness in a wild chimpanzee (*Pan troglodytes schweinfurthii*) at Gombe National Park, Tanzania: findings, challenges, and lessons learned. *Primates*, **55**(1), 89–99. DOI: 10.1007/s10329-013-0372-4.

Loos, A. and Ernst, A. (2013). An automated chimpanzee identification system using face detection and recognition. *EURASIP Journal on Image and Video Processing*, **2013**(1), 49. DOI: 10.1186/1687-5281-2013-49.

Loos, A. and Kalyanasundaram, T.A.M. (2015). Face recognition for great apes: identification of primates in videos. Presented at: *2015 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 19–24 April 2015, Brisbane, Queensland Australia.* Piscataway, NJ: Institute of Electrical and Electronics Engineers Signal Processing Society (IEEE), pp. 1548–1552. DOI: 10.1109/ICASSP.2015.7178230.

Lovejoy, T.E. and Nobre, C. (2019). Amazon tipping point: last chance for action. *Science Advances*, **5**(12), eaba2949. DOI: 10.1126/sciadv.aba2949.

Lowenstine, L.J., McManamon, R., Bonar, C. and Perkins, L. (2008). Preliminary results of a survey of United States and Canadian orangutan mortalities in the North American SSP population from 1980 to March 2008. Presented at: *Proceedings of the Annual Meeting of the American Association of Zoo Veterinarians, Los Angeles, CA, 11–17 October 2008*, Jacksonville, FL: American Association of Zoo Veterinarians.

Lowenstine, L.J., McManamon, R. and Terio, K.A. (2016). Comparative pathology of aging great apes: bonobos, chimpanzees, gorillas, and orangutans. *Veterinary Pathology*, **53**(2), 250–76. DOI: 10.1177/0300985815612154.

Lowenstine, L.J., McManamon, R. and Terio, K.A. (2018). Apes. In *Pathology of Wildlife and Zoo Animals*, ed. K. A. Terio, D. McAloose and J. St Leger. Cambridge, UK: Elsevier Inc., pp. 375–412.

Lu, H., Giordano, F. and Ning, Z. (2016). Oxford nanopore MinION sequencing and genome assembly. *Genomics, Proteomics & Bioinformatics*, **14**(5), 265–79. DOI: 10.1016/j.gpb.2016.05.004.

Lu, J., Bayne, K. and Wang, J. (2013). Current status of animal welfare and animal rights in China. *Alternatives to Laboratory Animals*, **41**(5), 351–7. DOI: 10.1177/026119291304100505.

Lucchesi, S., Cheng, L., Janmaat, K.R.L., *et al.* (2020). Beyond the group: how food, mates, and group size influence intergroup encounters in wild bonobos. *Behavioral Ecology*, **31**(2), 519–32.

Lundmark, F., Berg, C. and Röcklinsberg, H. (2018). Private animal welfare standards – opportunities and risks. *Animals*, **8**(1), 4. DOI: 10.3390/ani8010004.

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Lyons, M., Smuts, C. and Stephens, A. (2001). Participation, empowerment and sustainability: (how) do the links work? *Urban Studies*, **38**(8), 1233–-51. DOI: 10.1080/00420980125039.

Lyra, T.M. (2006). La erradicación de la peste porcina africana en el Brasil, 1978–1984 [The eradication of African swine fever in Brazil, 1978–1984]. *Revue Scientifique et Technique de l'Office International des Épizooties*, **25**(1), 93–103.

Mabano, A. (2013). *Impact of tourists on mountain gorilla behavior.* BSc thesis. Huye, Rwanda: National University of Rwanda.

Macfie, E.J. and Williamson, E.A. (2010). *Best Practice Guidelines for Great Ape Tourism.* Gland, Switzerland: International Union for Conservation of Nature (IUCN) Species Survival Commission (SSC) Primate Specialist Group (PSG). Available at: https://portals.iucn.org/library/efiles/documents/SSC-OP-038.pdf.

Mackenzie, J.S. and Jeggo, M. (2019). The One Health approach: why is it so important? *Tropical Medicine and Infectious Disease*, **4**(2), 88. DOI: 10.3390/tropicalmed4020088.

MacQueen, K.M., McLellan, E., Metzger, D.S., *et al.* (2001). What is community? An evidence-based definition for participatory public health. *American Journal of Public Health*, **91**(12), 1929–38. DOI: 10.2105/ajph.91.12.1929.

Maddox, T., Howard, P., Knox, J. and Jenner, N. (2019). *Forest-Smart Mining: Identifying Factors Associated with the Impacts of Large-Scale Mining on Forests.* Washington DC: World Bank. DOI: 10.1596/32025.

Madliger, C.L., Love, O.P., Hultine, K.R. and Cooke, S.J. (2018). The conservation physiology toolbox: status and opportunities. *Conservation Physiology*, **6**(1). DOI: 10.1093/conphys/coy029.

Maekawa, M., Lanjouw, A., Rutagarama, E. and Sharp, D. (2013). Mountain gorilla tourism generating wealth and peace in post-conflict Rwanda. *Natural Resources Forum*, **37**(2), 127–37. DOI: 10.1111/1477-8947.12020.

Maekawa, M., Lanjouw, A., Rutagarama, E. and Sharp, D. (2015). Mountain gorilla ecotourism: supporting macroeconomic growth and providing local livelihoods. In *Livelihoods, Natural Resources, and Post-Conflict Peacebuilding*, ed. H. Young and L. Goldman. Abingdon, UK: Taylor & Francis, pp. 167–86.

Maertens, B., Gagnaire, A., Paerewijck, O., De Bosscher, K. and Geldhof, P. (2021). Regulatory role of the intestinal microbiota in the immune response against *Giardia*. *Scientific Reports*, **11**, 10601. DOI: 10.1038/s41598-021-90261-z.

Maisels, F., Bergl, R.A. and Williamson, E.A. (2018). Gorilla gorilla *(amended version of 2016 assessment). The IUCN Red List of Threatened Species 2018: e.T9404A136250858.* Gland, Switzerland: International Union for Conservation of Nature (IUCN). DOI: 10.2305/IUCN.UK.2018-2.RLTS.T9404A136250858.en.

Maisels, F., Plumptre, A.J. and Strindberg, S. (2021). New Grauer's gorilla estimate. *Gorilla Journal*, **63**, 6–7. Available at https://www.berggorilla.org/en/gorillas/gorilla-numbers/gorilla-numbers/new-grauers-gorilla-population-estimate/.

Maisels, F., Strindberg, S., Greer, D., *et al.* (2016). Pan troglodytes *ssp.* troglodytes *(errata version published in 2016). The IUCN Red List of Threatened Species 2016: e.T15936A102332276.* Gland, Switzerland: International Union for Conservation of Nature (IUCN). DOI: 10.2305/IUCN.UK.2016-2.RLTS.T15936A17990042.en.

Maki, S., Alford, P. and Bramblett, C. (1987). The effects of unfamiliar humans on aggression in captive chimpanzee groups. *American Journal of Primatology*, **12**(3), 358.

Maldonado, O., Aveling, C., Cox, D., *et al.* (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: International Union for Conservation of Nature (IUCN) Species Survival Commission (SSC) Primate Specialist Group (PSG), Ministry of Environment, Nature Conservation & Tourism, Institut Congolais pour la Conservation de la Nature & the Jane Goodall Institute. Available at: https://www.iucn.org/content/grauers-gorillas-and-chimpanzees-eastern-democratic-republic-congo-kahuzi-biega-maiko-tayna-and-itombwe-landscape-conservation-action-plan-2012-2022.

Malhi, Y., Roberts, J.T., Betts, R.A., *et al.* (2008). Climate change, deforestation, and the fate of the Amazon. *Science*, **319**(5860), 169–72. DOI: 10.1126/science.1146961.

Manansang, W. (2020). Roadmap to the 2023 goal. Progressing the SEAZA animal welfare certification program. *WAZA News*, **3** 16–17. Available at https://www.waza.org/wp-content/uploads/2020/10/WAZA-magazine3-2020-FINAL-web.pdf.

Marí Saéz, A., Weiss, S., Nowak, K., *et al.* (2015). Investigating the zoonotic origin of the West African Ebola epidemic. *EMBO Molecular Medicine*, **7**(1), 17–23. DOI: 10.15252/emmm.201404792.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 15 Nov 2026 at 20:46:16, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781009071727.013

Marks, M., Solomon, A.W. and Mabey, D.C. (2014). Endemic treponemal diseases. *Transactions of the Royal Society of Tropical Medicine and Hygiene*, **108**(10), 601–7. DOI: 10.1093/trstmh/tru128.

Maron, M., Hobbs, R.J., Moilanen, A., *et al.* (2012). Faustian bargains? Restoration realities in the context of biodiversity offset policies. *Biological Conservation*, **155**(Supplement C), 141–8. DOI: 10.1016/j.biocon.2012.06.003.

Marques, A., Martins, I.S., Kastner, T., *et al.* (2019). Increasing impacts of land use on biodiversity and carbon sequestration driven by population and economic growth. *Nature Ecology & Evolution*, **3**(4), 628–37. DOI: 10.1038/s41559-019-0824-3.

Marrana, M. (2022). Chapter 3. Epidemiology of disease through the interactions between humans, domestic animals, and wildlife. In *One Health*, ed. J. C. Prata, A. I. Ribeiro and T. Rocha-Santos. Cambridge, MA: Academic Press, pp. 73–111. DOI: 10.1016/B978-0-12-822794-7.00001-0.

Marshall, A.J., Ancrenaz, M., Brearley, F.Q., *et al.* (2009). The effects of forest phenology and floristics on populations of Bornean and Sumatran orangutans: are Sumatran forests more productive than Bornean forests? In *Orangutans: Geographic Variation in Behavioral Ecology and Conservation*, ed. S. A. Wich, S. Utami-Atmoko, T. Mitra Setia and C. P. van Schaik. Oxford, UK: Oxford University Press, pp. 97–117.

Marshall, A.J., Cannon, C.H. and Leighton, M. (2009). Competition and niche overlap between gibbons (*Hylobates albibarbis*) and other frugivorous vertebrates in Gunung Palung National Park, West Kalimantan, Indonesia. In *The Gibbons: New Perspectives on Small Ape Socioecology and Population Biology*, ed. D. Whittaker and S. Lappan. New York, NY: Springer, pp. 161–88. DOI: 10.1007/978-0-387-88604-6_9.

Marshall, A.J. and Leighton, M. (2006). How does food availability limit the population density of white-bearded gibbons? In *Feeding Ecology in Apes and Other Primates: Ecological, Physiological and Behavioural Aspects*. Cambridge Studies in Biological and Evolutionary Anthropology Volume 48, ed. G. Hohmann, M. Robbins and C. Boesch. Cambridge, UK: Cambridge University Press, pp. 313–35.

Martinsen, S. and Jukes, N. (2005). Towards a humane veterinary education. *Journal of Veterinary Medical Education*, **32**(4), 454–60. DOI: 10.3138/jvme.32.4.454.

Marx, V. (2015). PCR heads into the field. *Nature Methods*, **12**(5), 393–7. DOI: 10.1038/nmeth.3369.

Marzec, A.M., Kunz, J.A., Falkner, S., *et al.* (2016). The dark side of the red ape: male-mediated lethal female competition in Bornean orangutans. *Behavioral Ecology and Sociobiology*, **70**(4), 459–66. DOI: 10.1007/s00265-015-2053-3.

Marzi, A., Murphy, A.A., Feldmann, F., *et al.* (2016). Cytomegalovirus-based vaccine expressing Ebola virus glycoprotein protects nonhuman primates from Ebola virus infection. *Scientific Reports*, **6**, 21674. DOI: 10.1038/srep21674.

Maseyk, F.J.F., Maron, M., Gordon, A., Bull, J.W. and Evans, M.C. (2021). Improving averted loss estimates for better biodiversity outcomes from offset exchanges. *Oryx*, **55**(3), 393–403. DOI: 10.1017/S0030605319000528.

Masi, S., Chauffour, S., Bain, O., *et al.* (2012). Seasonal effects on great ape health: a case study of wild chimpanzees and western gorillas. *PLoS ONE*, **7**(12), e49805. DOI: 10.1371/journal.pone.0049805.

Masi, S., Cipolletta, C. and Robbins, M.M. (2009). Western lowland gorillas (*Gorilla gorilla gorilla*) change their activity patterns in response to frugivory. *American Journal of Primatology*, **71**(2), 91–100. DOI: 10.1002/ajp.20629.

Matos Mendes, D. (2020). Goiânia Zoo – siamangs in their islands. *Zoochat*, September 14, 2020. Available at: https://www.zoochat.com/community/media/goiania-zoo-siamangs-in-their-islands.501054/.

Mätz-Rensing, K., Kunze, M., Zöller, M., *et al.* (2011). Fatal *Balamuthia mandrillaris* infection in a gorilla: first case of balamuthiasis in Germany. *Journal of Medical Primatology*, **40**(6), 437–40. DOI: 10.1111/j.1600-0684.2011.00479.x.

Mazet, J.A.K., Genovese, B.N., Harris, L.A., *et al.* (2020). Human respiratory syncytial virus detected in mountain gorilla respiratory outbreaks. *EcoHealth*, **17**, 449–60.

Mazimhaka, J. (2006). *The potential impact of domestic tourism on Rwanda's tourism economy.* MA thesis. Johannesburg, South Africa: University of the Witwatersrand.

Mbaya, A.W. and Udendeye, U.J. (2011). Gastrointestinal parasites of captive and free-roaming primates at the Afi Mountain Primate Conservation Area in Calabar, Nigeria and their zoonotic implications. *Pakistan Journal of Biological Sciences*, **14**(13), 709–14. DOI: 10.3923/pjbs.2011.709.714.

Mbayahi, A. and Kalema-Zikusoka, G. (2020). *COVID-19 and Africa's Great Apes. Challenges and Threats Amidst the COVID-19 Pandemic for Sustaining Conservation Through Responsible Great Ape Tourism. Policy Brief.* Nairobi,

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Kenya: African Civil Society Biodiversity Alliance (ACBA). Available at: https://africancba.org/download-resource-file/POLICY%20BRIEF%20ON%20AFRICA%20GREAT%20APES%20AND%20COVID-19%20ENGLISH%20%282%29_compressed.pdf.

McBean, G. (2004). Climate change and extreme weather: a basis for action. *Natural Hazards*, **31**(1), 177–90. DOI: 10.1023/B:NHAZ.0000020259.58716.0d.

McCarthy, M., Bigelow, J. and Taylor, M. (2018). Emergency preparedness and planning for animals: a case study in the Blue Mountains, New South Wales (NSW). *Australian Journal of Emergency Management*, **33**(4), 50–6.

McCarthy, M.S., Lester, J.D., Howe, E.J., *et al.* (2015). Genetic censusing identifies an unexpectedly sizeable population of an endangered large mammal in a fragmented forest landscape. *BMC Ecology*, **15**(1), 21. DOI: 10.1186/s12898-015-0052-x.

McConkey, K.R. (2018). Seed dispersal by primates in Asian habitats: from species, to communities, to conservation. *International Journal of Primatology*, **39**(3), 466–92. DOI: 10.1007/s10764-017-0013-7.

McConkey, K.R., Nathalang, A., Brockelman, W.Y., *et al.* (2018). Different megafauna vary in their seed dispersal effectiveness of the megafaunal fruit *Platymitra macrocarpa* (Annonaceae). *PLoS ONE*, **13**(7), e0198960. DOI: 10.1371/journal.pone.0198960.

McCormick, G.L., Shea, K. and Langkilde, T. (2015). How do duration, frequency, and intensity of exogenous CORT elevation affect immune outcomes of stress? *General and Comparative Endocrinology*, **222**, 81–7. DOI: 10.1016/j.ygcen.2015.07.008.

McCullers, J.A. (2014). The co-pathogenesis of influenza viruses with bacteria in the lung. *Nature Reviews Microbiology*, **12**(4), 252–62. DOI: 10.1038/nrmicro3231.

McDonald, M. and Johnson, S. (2014). "There's an app for that": a new program for the collection of behavioural field data. *Animal Behaviour*, **95**, 81–7. DOI: 10.1016/j.anbehav.2014.06.009.

McInturff, A., Xu, W., Wilkinson, C.E., Dejid, N. and Brashares, J.S. (2020). Fence ecology: frameworks for understanding the ecological effects of fences. *BioScience*, **70**(11), 971–85. DOI: 10.1093/biosci/biaa103.

McLennan, M.R. and Hockings, K.J. (2016). The aggressive apes? Causes and contexts of great ape attacks on local persons. In *Problematic Wildlife: A Cross-Disciplinary Approach*, ed. F. M. Angelici. Cham, Switzerland: Springer, pp. 373–94. DOI: 10.1007/978-3-319-22246-2_18.

McManamon, R. and Lowenstine, L. (2012). Cardiovascular disease in great apes. In *Fowler's Zoo and Wild Animal Medicine, Current Therapy, Volume 7*, ed. R. E. Miller and M. Fowler. St Louis, MO: Elsevier Saunders, pp. 408–15. DOI: 10.1016/B978-1-4377-1986-4.00053-6.

McManamon, R., Swenson, R.B. and Lowenstine, L.J. (1994). Update on diagnostic and therapeutic approaches to airsacculitis in orangutans. Presented at: *Proceedings of the Annual Meeting of the American Association of Zoo Veterinarians, Pittsburgh, PA, 23–28 October 1994*. Jacksonville, FL: American Association of Zoo Veterinarians, pp. 219–20.

McTighe, M.S., Hansen, B.C., Ely, J.J. and Lee, D.R. (2011). Determination of hemoglobin A1c and fasting blood glucose reference intervals in captive chimpanzees (*Pan troglodytes*). *Journal of the American Association for Laboratory Animal Science*, **50**(2), 165–70.

Medkour, H., Amona, I., Laidoudi, Y., *et al.* (2020). Parasitic infections in African humans and non-human primates. *Pathogens*, **9**(7), 561. DOI: 10.3390/pathogens9070561.

Meehan, T.P. and Lowenstine, L.J. (1994). Causes of mortality in captive lowland gorillas: a survey of the SSP population. Presented at: *Proceedings of the Annual Meeting of the American Association of Zoo Veterinarians, Pittsburgh, PA, 23–28 October 1994*. Jacksonville, FL: American Association of Zoo Veterinarians.

Meehl, G.A., Zwiers, F., Evans, J., *et al.* (2000). Trends in extreme weather and climate events: issues related to modeling extremes in projections of future climate change. *Bulletin of the American Meteorological Society*, **81**(3), 427–36. DOI: 10.1175/1520-0477(2000)081<0427:TIEWAC>2.3.CO;2.

Meijaard, E. (2015). Indonesia's silent tragedy in a connected world. *Jakarta Globe, reproduced by the Ape Alliance*, October 30, 2015. Available at: https://www.4apes.com/news/general/item/1318-erik-meijaard-indonesia-s-silent-tragedy-in-a-connected-world.

Meijaard, E., Albar, G., Nardiyono, *et al.* (2010). Unexpected ecological resilience in Bornean orangutans and implications for pulp and paper plantation management. *PLoS ONE*, **5**(9), e12813. DOI: 10.1371/journal.pone.0012813.

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Meijaard, E., Ni'matullah, S., Dennis, R., *et al.* (2021). The historical range and drivers of decline of the Tapanuli orangutan. *PLoS ONE*, **16**(1), e0238087. DOI: 10.1371/journal.pone.0238087.

Meijaard, E. and Wich, S.A. (2014). *Extractive Industries and Orangutans. Occasional Paper for State of the Apes, Volume 1.* Cambridge, UK: Arcus Foundation. Available at: https://www.stateoftheapes.com/wp-content/uploads/2014/07/Extractive-Industries-and-Orangutans1.pdf.

Meijaard, E., Wich, S., Ancrenaz, M. and Marshall, A.J. (2012). Not by science alone: why orangutan conservationists must think outside the box. *Year in Ecology and Conservation Biology*, **1249**, 29–44. DOI: 10.1111/j.1749-6632.2011.06288.x.

Melin, A.D., Janiak, M.C., Marrone, F., Arora, P.S. and Higham, J.P. (2020). Comparative ACE2 variation and primate COVID-19 risk. *Communications Biology*, **3**(1), 641. DOI: 10.1038/s42003-020-01370-w.

Mellor, D.J. (2017). Operational details of the five domains model and its key applications to the assessment and management of animal welfare. *Animals*, **7**(8), 60. DOI: 10.3390/ani7080060.

Mellor, D.J., Beausoleil, N.J., Littlewood, K.E., *et al.* (2020). The 2020 Five Domains Model: including human–animal interactions in assessments of animal welfare. *Animals*, **10**(10), 1870. DOI: 10.3390/ani10101870.

Mendez, A. and Houghton, D.P. (2020). Sustainable banking: the role of multilateral development banks as norm entrepreneurs. *Sustainability*, **12**(3), 972. DOI: 10.3390/su12030972.

Meyers, W.M., Walsh, G.P., Brown, H.L., *et al.* (1985). Leprosy in a mangabey monkey: naturally acquired infection. *International Journal of Leprosy and Other Mycobacterial Diseases*, **53**(1), 1–14.

Michel, A.L., Venter, L., Espie, I.W. and Coetzee, M.L. (2003). *Mycobacterium tuberculosis* infections in eight species at the National Zoological Gardens of South Africa, 1991–2001. *Journal of Zoo and Wildlife Medicine*, **34**(4), 364–70. DOI: 10.1638/02-063.

Millar, K., Thorstensen, E., Tomkins, S., Mepham, B. and Kaiser, M. (2007). Developing the ethical Delphi. *Journal of Agricultural and Environmental Ethics*, **20**(1), 53–63. DOI: 10.1007/s10806-006-9022-9.

Miller, R.E., Calle, P.P. and Lamberski, N., ed. (2023). *Fowler's Zoo and Wild Animal Medicine Current Therapy, Volume 10*. St Louis, MO: Elsevier. DOI: 10.1016/B978-0-323-82852-9.00114-3.

Miller, R.E. and Fowler, M.E., ed. (2015). *Fowler's Zoo and Wild Animal Medicine, Volume 8*. Philadelphia, PA: Elsevier Saunders.

Miller, R.E., Lamberski, N. and Calle, P.P., ed. (2019). *Fowler's Zoo and Wild Animal Medicine Current Therapy, Volume 9*. St Louis, MO: Elsevier. DOI: 10.1016/B978-0-323-55228-8.00148-X.

Milstein, M.S., Shaffer, C.A., Suse, P., *et al.* (2020). An ethnographic approach to characterizing potential pathways of zoonotic disease transmission from wild meat in Guyana. *EcoHealth*, **17**(4), 424–36. DOI: 10.1007/s10393-021-01513-3.

MINAE (2017a). *Regulations for the Implementation of the Wildlife Conservation Law No. 7317.* San José, Costa Rica: Ministerio del Ambiente y Energía (MINAE). Available at: https://stopanimalselfies.org/wp-content/uploads/2019/10/ENGLISH-Regulation-Wildlife-Conservation-Law-Costa-Rica.pdf.

MINAE (2017b). *Wildlife Conservation Law No. 7317.* San José, Costa Rica: Ministerio del Ambiente y Energía (MINAE). Available at: https://stopanimalselfies.org/wp-content/uploads/2019/10/Ley-CVS-ingles.pdf.

Ministry of Natural Resources Energy and Mining (2017). *National Parks and Wildlife Act.* Lilongwe, Malawi: Ministry of Natural Resources, Energy and Mining. Available at: https://www.lilongwewildlife.org/wp-content/uploads/Malawi.Wildlife.Legislation.Digital.pdf.

Mirza, M.M.Q. (2003). Climate change and extreme weather events: can developing countries adapt? *Climate Policy*, **3**(3), 233–48. DOI: 10.1016/S1469-3062(03)00052-4.

Mitani, J.C. (2009). Male chimpanzees form enduring and equitable social bonds. *Animal Behaviour*, **77**(3), 633–40. DOI: 10.1016/j.anbehav.2008.11.021.

Mitani, J.C., Watts, D.P. and Amsler, S.J. (2010). Lethal intergroup aggression leads to territorial expansion in wild chimpanzees. *Current Biology*, **20**(12), R507–8. DOI: 10.1016/j.cub.2010.04.021.

Mitchell, G., Tromborg, C.T., Kaufman, J., *et al.* (1992). More on the "influence" of zoo visitors on the behaviour of captive primates. *Applied Animal Behaviour Science*, **35**(2), 189–98. DOI: 10.1016/0168-1591(92)90009-Z.

Mitman, S., Rosenbaum, M., Bello, R., *et al.* (2021). Challenges to IUCN guideline implementation in the rehabilitation and release of trafficked primates in Peru. *Primate Conservation*, **35**, 1–16.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 15 Nov 2026 at 20:46:16, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781009071727.013

Mitra Setia, T., Delgado, R.A., Utami-Atmoko, S.S., Singleton, I. and van Schaik, C.P. (2009). Social organization and male–female relationships. In *Orangutans: Geographic Variation in Behavioral Ecology and Conservation*, ed. S. A. Wich, S. S. Utami-Atmoko, T. M. Setia and C. P. van Schaik. Oxford, UK: Oxford University Press, pp. 245–54. DOI: 10.1093/acprof:oso/9780199213276.003.0017.

Mittermeier, R.A., Rylands, A.B. and Wilson, D.E., ed. (2013). *Handbook of the Mammals of the World. Volume 3: Primates*. Barcelona, Spain: Lynx Edicions.

Mlengeya, T. (2000). *TANAPA Veterinary Department Annual Report 2000/2001. Respiratory Disease Outbreak in the Chimpanzee Population of Gombe National Park.* Arusha, Tanzania: Tanzania National Parks (TANAPA).

Moberg, G.P. (1985). Influence of stress on reproduction: measure of well-being. In *Animal Stress*, ed. G. P. Moberg. New York, NY: Springer, pp. 245–67. DOI: 10.1007/978-1-4614-7544-6_14.

Moberg, G.P. (2000). Biological response to stress: implications for animal welfare. In *The Biology of Animal Stress: Basic Principles and Implications for Animal Welfare*, ed. G. P. Moberg and J. A. Mench. Wallingford, UK: CABI International, pp. 1–21. DOI: 10.1079/9780851993591.0001.

Modry, D., Pafćo, B., Petrželková, K.J. and Hasegawa, H., ed. (2018). *Parasites of Apes: An Atlas of Coproscopic Diagnostics*. Frankfurt Contributions to Natural History, Volume 76. Frankfurt, Germany: Editions Chimaira. Available at: https://www.chimaira.de.

Moeller, A.H. (2017). The shrinking human gut microbiome. *Current Opinion in Microbiology*, **38**, 30–5. DOI: 10.1016/j.mib.2017.04.002.

Mokuwa, E. and Richards, P. (2020). How should public health officials respond when important local rituals increase risk of contagion? Case and commentary. *AMA Journal of Ethics*, **22**(1), E5–9.

Moloney, G.K., Tuke, J., Dal Grande, E., Nielsen, T. and Chaber, A.-L. (2021). Is YouTube promoting the exotic pet trade? Analysis of the global public perception of popular YouTube videos featuring threatened exotic animals. *PLoS ONE*, **16**(4), e0235451. DOI: 10.1371/journal.pone.0235451.

Molyneaux, A., Hankinson, E., Kaban, M., *et al.* (2021). Primate selfies and anthropozoonotic diseases: lack of rule compliance and poor risk perception threatens orangutans. *Folia Primatologica*, **92**(5–6), 296–305. DOI: 10.1159/000520371.

Monkey World (n.d.). *Meet the Primates.* Wareham, UK: Monkey World. Available at: https://monkeyworld.org/our-primates/primate-groups/. Accessed: October, 2020.

Montali, R.J., Mikota, S.K. and Cheng, L.I. (2001). *Mycobacterium tuberculosis* in zoo and wildlife species. *Revue Scientifique et Technique de l'Office International des Épizooties*, **20**(1), 291–303. DOI: 10.20506/rst.20.1.1268.

Monte Adone (n.d.). *Scimpanzè.* Sasso Marconi, Italy: Centro Tutela e Ricerca Fauna Esotica e Selvatica Monte Adone ODV. Available at: https://centrotutelafauna.org/scimpanze/. Accessed: December, 2020.

Monto, A.S. (2002). Epidemiology of viral respiratory infections. *The American Journal of Medicine*, **112**(6), 4–12. DOI: 10.1016/S0002-9343(01)01058-0.

Moon, S., Sridhar, D., Pate, M.A., *et al.* (2015). Will Ebola change the game? Ten essential reforms before the next pandemic. The report of the Harvard-LSHTM Independent Panel on the Global Response to Ebola. *The Lancet*, **386**(10009), 2204–21. DOI: 10.1016/S0140-6736(15)00946-0.

Moore, J., Black, J., Hernandez-Aguilar, R.A., *et al.* (2017). Chimpanzee vertebrate consumption: savanna and forest chimpanzees compared. *Journal of Human Evolution*, **112**, 30–40. DOI: 10.1016/j.jhevol.2017.09.004.

Moore, P., Prompinchompoo, C. and Beastall, C.A. (2016). *CITES Implementation in Thailand: A Review of the Legal Regime Governing the Trade in Great Apes and Gibbons and Other CITES-Listed Species.* Selangor, Malaysia: TRAFFIC. Available at: http://www.trafficj.org/publication/16_CITES_Implementation_in_Thailand.pdf.

Moorhouse, T.P., Dahlsjö, C.A.L., Baker, S.E., D'Cruze, N.C. and Macdonald, D.W. (2015). The customer isn't always right – conservation and animal welfare implications of the increasing demand for wildlife tourism. *PLoS ONE*, **10**(10), e0138939. DOI: 10.1371/journal.pone.0138939.

Mootnick, A.R., Reingold, M., Holshuh, H.J. and Mirkovic, R.R. (1998). Isolation of a herpes simplex virus type 1-like agent from the brain of a mountain agile gibbon (*Hylobates agilis agilis*) with encephalitis. *Journal of Zoo and Wildlife Medicine*, **29**(1), 61–4.

Morbeck, M.E., Zihlman, A.L., Sumner, D.R. and Galloway, A. (1991). Poliomyelitis and skeletal asymmetry in Gombe chimpanzees. *Primates*, **32**(1), 77–91. DOI: 10.1007/BF02381602.

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Morcillo, D.O., Steiner, U.K., Grayson, K.L., Ruiz-Lambides, A.V. and Hernández-Pacheco, R. (2020). Hurricane-induced demographic changes in a non-human primate population. *Royal Society Open Science*, **7**(8), 200173. DOI: 10.1098/rsos.200173.

Morgan, D., Mundry, R., Sanz, C., *et al.* (2018). African apes coexisting with logging: comparing chimpanzee (*Pan troglodytes troglodytes*) and gorilla (*Gorilla gorilla gorilla*) resource needs and responses to forestry activities. *Biological Conservation*, **218**, 277–86. DOI: 10.1016/j.biocon.2017.10.026.

Morgan, D. and Sanz, C. (2003). Naïve encounters with chimpanzees in the Goualougo Triangle, Republic of Congo. *International Journal of Primatology*, **24**(2), 369–81. DOI: 10.1023/A:1023005417897.

Morgan, D. and Sanz, C. (2006). Chimpanzee feeding ecology and comparisons with sympatric gorillas in the Goualougo Triangle, Republic of Congo. In *Feeding Ecology in Apes and Other Primates: Ecological, Physiological and Behavioural Aspects*. Cambridge Studies in Biological and Evolutionary Anthropology Volume 48, ed. G. Hohmann, M. Robbins and C. Boesch. Cambridge, UK: Cambridge University Press, pp. 97–122.

Morgan, D. and Sanz, C. (2007). *Best Practice Guidelines for Reducing the Impact of Commercial Logging on Great Apes in Western Equatorial Africa.* Gland, Switzerland: International Union for Conservation of Nature (IUCN) Species Survival Commission (SSC) Primate Specialist Group (PSG). Available at: https://portals.iucn.org/library/node/9059.

Morgan, D. and Sanz, C. (2020). *Rapport sur la biodiversity et l'importance ecologique du Triangle de Djeke, Republic du Congo.* Brazzaville, Republic of Congo: Foundation Nouabalé-Ndoki, Wildlife Conservation Society and Goualougo Triangle Ape Project.

Morgan, D., Strindberg, S., Winston, W., *et al.* (2019). Impacts of selective logging and associated anthropogenic disturbance on intact forest landscapes and apes of northern Congo. *Frontiers in Forests and Global Change*, **2**, July 3, 2019. DOI: 10.3389/ffgc.2019.00028.

Morgan, D.B., Winston, W., Ayina, C.E., *et al.* (2020). Forest certification and the high conservation value concept: protecting great apes in the Sangha Trinational Landscape in an era of industrial logging. In *Chimpanzees in Context: A Comparative Perspective on Chimpanzee Behavior, Cognition, Conservation, and Welfare*, ed. L. M. Hopper and S. R. Ross. Chicago, IL: University of Chicago Press, pp. 644–70. DOI: 10.7208/chicago/9780226728032.003.0027.

Morgan, K.N. and Tromborg, C.T. (2007). Sources of stress in captivity. *Applied Animal Behaviour Science*, **102**(3), 262–302. DOI: 10.1016/j.applanim.2006.05.032.

Morgans, C.L., Meijaard, E., Santika, T., *et al.* (2018). Evaluating the effectiveness of palm oil certification in delivering multiple sustainability objectives. *Environmental Research Letters*, **13**(6), 064032. DOI: 10.1088/1748-9326/aac6f4.

Mori Junior, R., Franks, D.M. and Ali, S.H. (2015). *Designing Sustainability Certification for Impact: Analysis of the Design Characteristics of 15 Sustainability Standards in the Mining Industry.* Brisbane, Australia: Centre for Social Responsibility in Mining, University of Queensland.

Morimura, N., Idani, G. and Matsuzawa, T. (2011). The first chimpanzee sanctuary in Japan: an attempt to care for the "surplus" of biomedical research. *American Journal of Primatology*, **73**(3), 226–32. DOI: 10.1002/ajp.20887.

Mörner, T., Obendorf, D.L., Artois, M. and Woodford, M.H. (2002). Surveillance and monitoring of wildlife diseases. *Revue Scientifique et Technique de l'Office International des Épizooties*, **21**(1), 67–76. DOI: 10.20506/rst.21.1.1321.

Morocco World News (2018). Animal trafficking in UAE still a major problem. *Morocco World News*, 2 August 2018. Available at: https://www.moroccoworldnews.com/2018/08/251652/animal-trafficking-uae-major-problem.

Morris, D.E., Cleary, D.W. and Clarke, S.C. (2017). Secondary bacterial infections associated with influenza pandemics. *Frontiers in Microbiology*, **8**, June 23, 2017. DOI: 10.3389/fmicb.2017.01041.

Morton, F.B., Todd, A.F., Lee, P. and Masi, S. (2013). Observational monitoring of clinical signs during the last stage of habituation in a wild western gorilla group at Bai Hokou, Central African Republic. *Folia Primatologica*, **84**(2), 118–33. DOI: 10.1159/000350916.

Mubemba, B., Chanove, E., Mätz-Rensing, K., *et al.* (2020). Yaws disease caused by *Treponema pallidum* subspecies *pertenue* in wild chimpanzee, Guinea, 2019. *Emerging Infectious Diseases*, **26**, 1283–6.

Muegge, B.D., Kuczynski, J., Knights, D., *et al.* (2011). Diet drives convergence in gut microbiome functions across mammalian phylogeny and within humans. *Science*, **332**(6032), 970–4. DOI: 10.1126/science.1198719.

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Muehlenbein, M.P. (2013). Human–wildlife contact and emerging infectious diseases. In *Human–Environment Interactions: Current and Future Directions*, ed. E. S. Brondízio and E. F. Moran. Dordrecht, the Netherlands: Springer, pp. 79–94. DOI: 10.1007/978-94-007-4780-7_4.

Muehlenbein, M.P. and Ancrenaz, M. (2009). Minimizing pathogen transmission at primate ecotourism destinations: the need for input from travel medicine. *Journal of Travel Medicine*, **16**(4), 229–32. DOI: 10.1111/j.1708-8305.2009.00346.x.

Muehlenbein, M.P., Ancrenaz, M., Sakong, R., *et al.* (2012). Ape conservation physiology: fecal glucocorticoid responses in wild *Pongo pygmaeus morio* following human visitation. *PLoS ONE*, **7**(3), e33357. DOI: 10.1371/journal.pone.0033357.

Muehlenbein, M.P., Martinez, L.A., Lemke, A.A., *et al.* (2008). Perceived vaccination status in ecotourists and risks of anthropozoonoses. *EcoHealth*, **5**(3), 371–8. DOI: 10.1007/s10393-008-0192-y.

Muehlenbein, M.P., Martinez, L.A., Lemke, A.A., *et al.* (2010). Unhealthy travelers present challenges to sustainable primate ecotourism. *Travel Medicine and Infectious Disease*, **8**(3), 169–75. DOI: 10.1016/j.tmaid.2010.03.004.

Muehlenbein, M.P. and Wallis, J. (2014). Considering risks of pathogen transmission associated with primate-based tourism. In *Primate Tourism: A Tool for Conservation?*, ed. A. E. Russon and J. Wallis. Cambridge, UK: Cambridge University Press, pp. 278–91. DOI: 10.1017/CBO9781139087407.021.

Mugisha, L., Pauli, G., Opuda-Asibo, J., *et al.* (2010). Evaluation of poliovirus antibody titers in orally vaccinated semi-captive chimpanzees in Uganda. *Journal of Medical Primatology*, **39**(2), 123–8. DOI: 10.1111/j.1600-0684.2010.00400.x.

Muhangi, D., Gardiner, C.H., Ojok, L., *et al.* (2021). Pathological lesions of the digestive tract in free-ranging mountain gorillas (*Gorilla beringei beringei*). *American Journal of Primatology*, **83**(8), e23290. DOI: 10.1002/ajp.23290.

Mukanjari, S., Bednar-Friedl, B., Muchapondwa, E. and Zikhali, P. (2013). Evaluating the prospects of benefit sharing schemes in protecting mountain gorillas in Central Africa. *Natural Resource Modeling*, **26**(4), 455–79. DOI: 10.1111/nrm.12010.

Mukherjee, N., Hugé, J., Sutherland, W.J., *et al.* (2015). The Delphi technique in ecology and biological conservation: applications and guidelines. *Methods in Ecology and Evolution*, **6**(9), 1097–1109. DOI: 10.1111/2041-210X.12387.

Mul, I.F., Paembonan, W., Singleton, I., Wich, S.A. and van Bolhuis, H. (2007). Intestinal parasites of free-ranging, semicaptive, and captive *Pongo abelii* in Sumatra, Indonesia. *International Journal of Primatology*, **28**, 407–20. DOI: 10.1007/s10764-007-9119-7.

Mulero-Pázmány, M. (2021). The future of technology in conservation. In *Conservation Technology*, ed. S. A. Wich and A. K. Piel. Oxford, UK: Oxford University Press, pp. 255–73. DOI: 10.1093/oso/9780198850243.003.0013.

Munanura, I.E., Backman, K.F., Hallo, J.C. and Powell, R.B. (2016). Perceptions of tourism revenue sharing impacts on Volcanoes National Park, Rwanda: a Sustainable Livelihoods framework. *Journal of Sustainable Tourism*, **24**(12), 1709–26. DOI: 10.1080/09669582.2016.1145228.

Munanura, I.E., Backman, K.F. and Sabuhoro, E. (2013). Managing tourism growth in endangered species' habitats of Africa: Volcanoes National Park in Rwanda. *Current Issues in Tourism*, **16**(7–8), 700–18. DOI: 10.1080/13683500.2013.785483.

Munanura, I.E., Backman, K.F., Sabuhoro, E. and Bernhard, K.P. (2020). The potential of tourism benefits to reduce forest dependence behavior of impoverished residents adjacent to Volcanoes National Park in Rwanda. *Tourism Planning & Development*, **17**(5), 475–96. DOI: 10.1080/21568316.2019.1640282.

Munn, J. (2006). Effects of injury on the locomotion of free-living chimpanzees in the Budongo Forest Reserve, Uganda. In *Primates of Western Uganda*, ed. N. E. Newton-Fisher, H. Notman, J. D. Paterson and V. Reynolds. New York, NY: Springer, pp. 259–317.

Munson, L. and Montali, R.J. (1990). Pathology and diseases of great apes at the National Zoological Park. *Zoo Biology*, **9**, 99–105.

Murata, K., Hasegawa, H., Nakano, T., Noda, A. and Yanai, T. (2002). Fatal infection with human pinworm, *Enterobius vermicularis*, in a captive chimpanzee. *Journal of Medical Primatology*, **31**(2), 104–8. DOI: 10.1034/j.1600-0684.2002.01017.x.

Murguía, D.I., Bringezu, S. and Schaldach, R. (2016). Global direct pressures on biodiversity by large-scale metal mining: spatial distribution and implications for conservation. *Journal of Environmental Management*, **180**, 409–20. DOI: 10.1016/j.jenvman.2016.05.040.

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Murphy, H.W., Dennis, P., Devlin, W., Meehan, T. and Kutinsky, I. (2011). Echocardiographic parameters of captive western lowland gorillas (*Gorilla gorilla gorilla*). *Journal of Zoo and Wildlife Medicine*, **42**(4), 572–9. DOI: 10.1638/2010-0139.1.

Murray, J.S. (2010). Moral courage in healthcare: acting ethically even in the presence of risk. *OJIN: The Online Journal of Issues in Nursing*, **15**(3), 2. DOI: 10.3912/OJIN.Vol15No03Man02.

Mutombo, M., Arita, I. and Jezek, Z. (1983). Human monkeypox transmitted by a chimpanzee in a tropical rainforest area of Zaire. *The Lancet*, **321**(8327), 735–7. DOI: 10.1016/S0140-6736(83)92027-5.

Muyambi, F. (2005). The impact of tourism on the behaviour of mountain gorillas. *Gorilla Journal*, **30**, 14–15.

Myers, B. and Zrinski, U. (2022). Resilient and inclusive public financial management systems enable governments to better respond to disasters. *World Bank Blogs*, March 17, 2022. Available at: https://blogs.worldbank.org/governance/resilient-and-inclusive-public-financial-management-systems-enable-governments-better.

Nadler, Y. (2019). Contingency planning for all hazards and foreign animal disease. In *Fowler's Zoo and Wild Animal Medicine Current Therapy, Volume 9*, ed. R. E. Miller, N. Lamberski and P. P. Calle. St Louis, MO: W.B. Saunders, pp. 45–52. DOI: 10.1016/B978-0-323-55228-8.00009-6.

Nagpal, R., Shively, C.A., Appt, S.A., *et al.* (2018). Gut microbiome composition in non-human primates consuming a western or Mediterranean diet. *Frontiers in Nutrition*, **5**. DOI: 10.3389/fnut.2018.00028.

Nakamara, M., Hosaka, K., Itoh, N. and Zamma, K. (2015). *Mahale Chimpanzees: 50 Years of Research.* Cambridge, UK: Cambridge University Press.

Nash, L.T., Fritz, J., Alford, P.A. and Brent, L. (1999). Variables influencing the origins of diverse abnormal behaviors in a large sample of captive chimpanzees (*Pan troglodytes*). *American Journal of Primatology*, **48**(1), 15–29. DOI: 10.1002/(sici)1098-2345(1999)48:1<15::Aid-ajp2>3.0.Co;2-r.

Nash, R., Johnston, H., Robbins, A. and Descovich, K. (2021). The effect of enrichment filling and engagement time on regurgitation and reingestion behaviour in three zoo-housed orangutans. *Journal of Zoological and Botanical Gardens*, **2**(1), 10–20. DOI: 10.3390/jzbg2010002.

Nasution, A., Perwitasari-Farajallah, D. and Utami-Atmoko, S.S. (2018). Declining orangutans population in the unprotected forest of Batang Toru. *Tropical Life Science Research*, **29**(2), 77–87. DOI: 10.21315/tlsr2018.29.2.6.

Nasution, A., Perwitasari-Farajallah, D. and Utami-Atmoko, S.S. (2020). The distribution and density of Tapanuli orangutans (*Pongo tapanuliensis*) at potential corridor locations between forest fragments in Batang Toru, North Sumatra, Indonesia. *Biodiversitas*, **21**, 5382–8.

Nater, A., Mattle-Greminger, M.P., Nurcahyo, A., *et al.* (2017). Morphometric, behavioral, and genomic evidence for a new orangutan species. *Current Biology*, **27**(22), 3487–98.e10. DOI: 10.1016/j.cub.2017.09.047.

Natesan, M., Jensen, S.M.R., Keasey, S.L., *et al.* (2016). Human survivors of disease outbreaks caused by Ebola or Marburg virus exhibit cross-reactive and long-lived antibody responses. *Clinical and Vaccine Immunology*, **23**, 717–24.

Nathan, S., Chieng, S., Kingsley, P.V., *et al.* (2018). Melioidosis in Malaysia: incidence, clinical challenges, and advances in understanding pathogenesis. *Tropical Medicine and Infectious Disease*, **3**(1), 25. DOI: 10.3390/tropicalmed3010025.

National Research Council (US) (2001). Towards the development of disease early warning systems. In *Under the Weather: Climate, Ecosystems, and Infectious Disease*, ed. Committee on Climate, Infectious Diseases, and Human Health. Washington DC: National Academy of Sciences, pp. 86–102. Available at: https://www.ncbi.nlm.nih.gov/books/NBK222241/.

NBI (2020). Unprecedented rise in water levels of Lake Victoria. *Nile Basin Initiative News and Events*, July 20, 2020. Available at: https://nilebasin.org/new-and-events/307-unprecedented-rise-in-water-levels-of-lake-victoria.

Negrey, J.D., Reddy, R.B., Scully, E.J., *et al.* (2019). Simultaneous outbreaks of respiratory disease in wild chimpanzees caused by distinct viruses of human origin. *Emerging Microbes & Infections*, **8**(1), 139–49. DOI: 10.1080/22221751.2018.1563456.

Nellemann, C. and Newton, A. (2002). *The Great Apes, The Road Ahead – A GLOBIO Perspective on the Impacts of Infrastructure Development on the Great Apes.* United Nations Environment Programme (UNEP), GRID-Arendal, World Conservation Monitoring Centre. Available at: https://wedocs.unep.org/handle/20.500.11822/7485.

Nelson, C., Lurie, N., Wasserman, J. and Zakowski, S. (2007). Conceptualizing and defining public health emergency preparedness. *American Journal of Public Health*, **97**(S1), S9–11. DOI: 10.2105/ajph.2007.114496.

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Nepal, S.K. and Weber, K.E. (1994). A buffer zone for biodiversity conservation: viability of the concept in Nepal's Royal Chitwan National Park. *Environmental Conservation*, **21**(4), 333–41. DOI: 10.1017/S0376892900033646.

Newton-Fisher, N.E. (2003). The home range of the Sonso community of chimpanzees from the Budongo Forest, Uganda. *African Journal of Ecology*, **41**(2), 150–6. DOI: 10.1046/j.1365-2028.2003.00408.x.

Ng, L.S., Campos-Arceiz, A., Sloan, S., *et al.* (2020). The scale of biodiversity impacts of the Belt and Road Initiative in Southeast Asia. *Biological Conservation*, **248**, 108691. DOI: 10.1016/j.biocon.2020.108691.

Ngamassi, L., Shahriari, H., Ramakrishnan, T. and Rahman, S. (2022). Text mining hurricane Harvey tweet data: lessons learned and policy recommendations. *International Journal of Disaster Risk Reduction*, **70**, 102753. DOI: 10.1016/j.ijdrr.2021.102753.

Ngamba Island Chimpanzee Sanctuary (2020). Ngamba Island Chimpanzee Sanctuary. *Facebook Post*, October 13, 2020. Available at: https://www.facebook.com/friendsofchimps/posts/3742243585809513.

Nicholls, H. (2015). Conservation biology: wild at heart. *Nature*, **528**(7583), 474–5. DOI: 10.1038/528474a.

Nicholson, L.B. (2016). The immune system. *Essays in Biochemistry*, **60**(3), 275–301. DOI: 10.1042/ebc20160017.

Nidom, C.A., Nakayama, E., Nidom, R.V., *et al.* (2012). Serological evidence of Ebola virus infection in Indonesian orangutans. *PLoS ONE*, **7**(7), e40740. DOI: 10.1371/journal.pone.0040740.

Nielsen, H. and Spenceley, A. (2010). *The Success of Tourism in Rwanda: Gorillas and More.* World Development Report 2011 Background paper. Washington DC, and the Hague, the Netherlands: World Bank and the Netherlands Development Organization. Available at: https://openknowledge.worldbank.org/server/api/core/bitstreams/27f8459f-f3b4-5e13-8cbc-bb17f7254cea/content.

Nielsen, H. and Spenceley, A. (2011). The success of tourism in Rwanda: gorillas and more. In *Yes Africa Can: Success Stories from a Dynamic Continent*, ed. P. Chuhan-Pole and M. Angwafo. Washington DC: The World Bank, pp. 231–49.

Nieuwland, J. (2020). *Towards an interspecies health policy: great apes and the right to health.* PhD thesis. Leiden, the Netherlands: Leiden University.

Nijboer, J. (2020). *Nutrition in Primates.* Rahway, NJ: MSD Veterinary Manual. Available at: https://www.msdvetmanual.com/management-and-nutrition/nutrition-exotic-and-zoo-animals/nutrition-in-primates.

Nijman, V. (2017). Orangutan trade, confiscations, and lack of prosecutions in Indonesia. *American Journal of Primatology*, **79**(11), 22652. DOI: 10.1002/ajp.22652.

Nijman, V. (2021). Illegal and legal wildlife trade spreads zoonotic diseases. *Trends in Parasitology*, **37**(5), 359–60. DOI: 10.1016/j.pt.2021.02.001.

Nijman, V., Geissmann, T., Traeholt, C., Roos, C. and Nowak, M.G. (2020). Symphalangus syndactylus. *The IUCN Red List of Threatened Species 2020: e.T39779A17967873.* Gland, Switzerland: International Union for Conservation of Nature (IUCN). DOI: 10.2305/IUCN.UK.2020-2.RLTS.T39779A17967873.en.

Nishida, A.H. and Ochman, H. (2019). A great-ape view of the gut microbiome. *Nature Reviews Genetics*, **20**(4), 195–206. DOI: 10.1038/s41576-018-0085-z.

Nishida, T. (1968). The social group of wild chimpanzees in the Mahali Mountains. *Primates*, **9**(3), 167–224. DOI: 10.1007/BF01730971.

Nishida, T., Matsusaka, T. and McGrew, W.C. (2009). Emergence, propagation or disappearance of novel behavioral patterns in the habituated chimpanzees of Mahale: a review. *Primates*, **50**(1), 23–36. DOI: 10.1007/s10329-008-0109-y.

Nizamuddin, Q. and Rahman, S.A. (2019). Animal welfare in Asia: specific flaws and strengths, future trends and objectives. In *Animal Welfare: from Science to Law*, ed. S. Hild and L. Schweitzer. Paris, France: La foundation Droit Animal, Ethique et Sciences, pp. 109–18. Available at: https://www.fondation-droit-animal.org/documents/AnimalWelfare2019.v1.pdf.

Nizeyi, J.B., Innocent, R.B., Erume, J., *et al.* (2001). Campylobacteriosis, salmonellosis, and shigellosis in free-ranging human-habituated mountain gorillas of Uganda. *Journal of Wildlife Diseases*, **37**(2), 239–44. DOI: 10.7589/0090-3558-37.2.239.

Nkuringo Safaris (2021). *The History of Gorilla Tourism.* Entebbe, Uganda: Nkuringo Safaris Uganda Ltd. Available at: https://www.nkuringosafaris.com/the-history-of-gorilla-tourism/.

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Nobel, E., Rybicki, D. and Martin, S. (2020). Wallaby Airlines hops in to help evacuate endangered wildlife from ACT fires and hot weather. *ABC News*, February 10, 2020. Available at: https://www.abc.net.au/news/2020-02-11/wallaby-airlines-hops-in-to-help-evacuate-endangered-wildlife/11949762.

Nolen, R.S. (2006). Gorilla conservation project takes "one-health" approach. Benefits extend beyond endangered apes. *Journal of the American Veterinary Medical Association*, **229**(10), 1546–8.

Norder, H., Ebert, J.W., Fields, H.A., Mushahwar, I.K. and Magnius, L.O. (1996). Complete sequencing of a gibbon hepatitis B virus genome reveals a unique genotype distantly related to the chimpanzee hepatitis B virus. *Virology*, **218**(1), 214–23. DOI: 10.1006/viro.1996.0181.

Normand, E. and Boesch, C. (2009). Sophisticated Euclidean maps in forest chimpanzees. *Animal Behaviour*, **77**(5), 1195–201. DOI: 10.1016/j.anbehav.2009.01.025.

Nowak, M.G., Rianti, P., Wich, S.A., Meijaard, E. and Fredriksson, G.M. (2017). Pongo tapanuliensis. *The IUCN Red List of Threatened Species 2017: e.T120588639A120588662.* Gland, Switzerland: International Union for Conservation of Nature (IUCN). DOI: 10.2305/IUCN.UK.2017-3.RLTS.T120588639A120588662.en.

NPA (2020). *Third National Development Plan (NDPIII) 2020/21–2024/25.* Kampala, Uganda: National Planning Authority (NPA).

NSW Rural Fire Service (n.d.-a). *NSW Bushfire Prone Land.* Sydney, Australia: NSW Government. Available at: https://datasets.seed.nsw.gov.au/dataset/bush-fire-prone-land. Accessed: July, 2022.

NSW Rural Fire Service (n.d.-b). *Standards for Asset Protection Zones.* Granville, Australia: NSW Rural Fire Service. Available at: https://www.rfs.nsw.gov.au/__data/assets/pdf_file/0010/13321/Standards-for-Asset-Protection-Zones.pdf. Accessed: July, 2022.

Nunamaker, E.A., Lee, D.R. and Lammey, M.L. (2012). Chronic diseases in captive geriatric female chimpanzees (*Pan troglodytes*). *Comparative Medicine*, **62**(2), 131–6.

Nunn, C. and Altizer, S. (2006). *Infectious Diseases in Primates: Behavior, Ecology and Evolution.* Oxford, UK: Oxford University Press. DOI: 10.1093/acprof:oso/9780198565857.001.0001.

Nunn, C L., Altizer, S., Jones, K E. and Sechrest, W. (2003). Comparative tests of parasite species richness in primates. *The American Naturalist*, **162**(5), 597–614. DOI: 10.1086/378721.

Nuno, A., Chesney, C., Wellbelove, M., *et al.* (2022). Protecting great apes from disease: compliance with measures to reduce anthroponotic disease transmission. *People and Nature*, **4**(5), 1387–400. DOI: 10.1002/pan3.10396.

Nurcahyo, W., Konstanzová, V. and Foitová, I. (2017). Parasites of orangutans (primates: Ponginae): an overview. *American Journal of Primatology*, **79**(6), e22650. DOI: 10.1002/ajp.22650.

Nutter, F.B. (1996). Respiratory disease claims the lives of at least seven Gombe chimps. *Pan Africa News*, **31**(3), 3. DOI: 10.5134/143337.

Nutter, F.B., Whittier, C.A., Cranfield, M.R. and Lowenstine, L.J. (2005). Causes of death for mountain gorillas (*Gorilla beringei beringei* and *G. b. undecided*) from 1968–2004: an aid to conservation programs. Presented at: *Wildlife Health in a Shrinking World: Ecology, Management and Conservation. Proceedings of the Wildlife Disease Association International Conference, Cairns, Queensland, Australia, 26 June–1 July 2005*. Lawrence, KS: Wildlife Disease Association, pp. 200–1.

Nyhus, P.J. (2016). Human–wildlife conflict and coexistence. *Annual Review of Environment and Resources*, **41**(1), 143–71. DOI: 10.1146/annurev-environ-110615-085634.

O'Riordan, T. and Lenton, T., ed. (2013). *Addressing Tipping Points for a Precarious Future.* London, UK: British Academy. DOI: 10.5871/bacad/9780197265536.001.0001.

Oates, J.F., Doumbe, O., Dunn, A., *et al.* (2016). Pan troglodytes *ssp.* ellioti. *The IUCN Red List of Threatened Species 2016: e.T40014A17990330.* Gland, Switzerland: International Union for Conservation of Nature (IUCN). DOI: 10.2305/IUCN.UK.2016-2.RLTS.T40014A17990330.en.

Odhiambo, N.M. (2021). Health expenditure and economic growth in sub-Saharan Africa: an empirical investigation. *Development Studies Research*, **8**(1), 73–81. DOI: 10.1080/21665095.2021.1892500.

Ogie, R.I., Forehead, H., Clarke, R.J. and Perez, P. (2018). Participation patterns and reliability of human sensing in crowd-sourced disaster management. *Information Systems Frontiers*, **20**(4), 713–28. DOI: 10.1007/s10796-017-9790-y.

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Ohashi, G. and Matsuzawa, T. (2011). Deactivation of snares by wild chimpanzees. *Primates*, **52**(1), 1–5. DOI: 10.1007/s10329-010-0212-8.

OHHLEP, Adisasmito, W.B., Almuhairi, S., *et al.* (2022). One Health: a new definition for a sustainable and healthy future. *PLoS Pathogens*, **18**(6), e1010537. DOI: 10.1371/journal.ppat.1010537.

Olhar Animal (2020). MP investiga fuga de chimpanzé que mobilizou 40 pessoas em zoológico de Sorocaba, SP. *Olhar Animal*, November 14, 2020. Available at: https://olharanimal.org/mp-investiga-fuga-de-chimpanze-que-mobilizou-40-pessoas-em-zoologico-de-sorocaba-sp/.

Olival, K.J. and Hayman, D.T.S. (2014). Filoviruses in bats: current knowledge and future directions. *Viruses*, **6**(4), 1759–88.

Ondoua, O.G., Beodo Moundjim, E., Mambo Marindo, J.C., *et al.* (2017). *An Assessment of Poaching and Wildlife Trafficking in the Garamba-Bili-Chinko Transboundary Landscape.* Cambridge, UK: TRAFFIC. Available at: https://www.traffic.org/site/assets/files/1591/garamba-bili-chinko-xxs.pdf.

Ontl, K.M.B. (2017). *Chimpanzees in the Island of Gold: impacts of artisanal small-scale gold mining on chimpanzees (*Pan troglodytes verus*) in Fongoli, Senegal.* PhD thesis. Armes, IA: Iowa State University. DOI: 10.31274/etd-180810-5211.

Oosterhoff, P., Mokuwa, E.Y. and Wilkinson, A. (2015). *Community-Based Ebola Care Centers: A Formative Evaluation.* Ebola Response Anthropology Platform. Available at: http://www.ebola-anthropology.net/wp-content/uploads/2015/07/Community-Based-Ebola-Care-Centres_A-Formative-Evaluation1.pdf.

OpenStreetMap (n.d.). *OpenStreetMap.* Available at: https://www.openstreetmap.org/#map=5/54.910/-3.432. Accessed: October, 2021.

Oppenheimer, P., Clarke, E., Cupit, O., *et al.* (2021). The SPOTT index: a proof-of-concept measure for tracking public disclosure in the palm oil industry. *Current Research in Environmental Sustainability*, **3**, 100042. DOI: 10.1016/j.crsust.2021.100042.

Oram, F. (2018). *Abundance, feeding and behavioural ecology of orangutans (*Pongo pygmaeus morio*) in the fragmented forests of the Kinabatangan floodplain.* PhD thesis. Kota Kinabalu, Malaysia: Institute for Tropical Biology and Conservation, University Malaysia Sabah.

Orams, M.B. (2002). Feeding wildlife as a tourism attraction: a review of issues and impacts. *Tourism Management*, **23**(3), 281–93. DOI: 10.1016/S0261-5177(01)00080-2.

Orangutan Appeal UK (n.d.). *Sepilok Orangutan Rehabilitation Centre.* Orangutan Appeal UK. Available at: https://www.orangutan-appeal.org.uk/about-us/sepilok-orangutan-rehabilitation-centre. Accessed: October, 2020.

Orangutan Foundation (2020). Great apes also under threat from COVID-19. *Orangutan Foundation*, March 27, 2020. Available at: https://www.orangutan.org.uk/blog/great-apes-also-under-threat-from-covid-19.

Orangutan Foundation International (n.d.). *Orangutan Care Center and Quarantine.* Los Angeles, CA: Orangutan Foundation International. Available at: https://orangutan.org/occq. Accessed: October, 2020.

Orenstein, W.A. and Ahmed, R. (2017). Simply put: vaccination saves lives. *Proceedings of the National Academy of Sciences*, **114**(16), 4031–3. DOI: 10.1073/pnas.1704507114.

Osofsky, S. (2016). Plan it for the apes: sound science must inform any plans to vaccinate gorillas or chimps against Ebola. *LinkedIn: Pulse*, September 2020. Available at: https://www.linkedin.com/pulse/plan-apes-sound-science-must-inform-any-plans-gorillas-steve-osofsky.

Ostrom, E. and Cox, M. (2010). Moving beyond panaceas: a multi-tiered diagnostic approach for social-ecological analysis. *Environmental Conservation*, **37**(4), 451–63. DOI: 10.1017/S0376892910000834.

Otsuka, R. and Yamakoshi, G. (2020). Analyzing the popularity of YouTube videos that violate mountain gorilla tourism regulations. *PLoS ONE*, **15**(5), e0232085. DOI: 10.1371/journal.pone.0232085.

OVAG (2020a). *COVID-19 Pandemic Guidelines.* Orangutan Veterinary Advisory Group (OVAG) Non Human Primate COVID-19 Information Hub. Available at: https://www.ovag.org/.

OVAG (2020b). *COVID-19 Preparedness and Response Plan.* Orangutan Veterinary Advisory Group (OVAG) Non Human Primate COVID-19 Information Hub. Available at: https://www.ovag.org/.

OVAG (n.d.). *Orangutan Veterinary Advisory Group.* Orangutan Veterinary Advisory Group (OVAG). Available at: https://www.ovag.org. Accessed: November, 2022.

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Owens, L.A., Colitti, B., Hirji, I., *et al.* (2021). A *Sarcina* bacterium linked to lethal disease in sanctuary chimpanzees in Sierra Leone. *Nature Communications*, **12**(1), 763. DOI: 10.1038/s41467-021-21012-x.

P-WAC (2020). Live Insta avec Maurice Barthélémy. *Facebook Post*, April 2, 2020. Available at: https://web.facebook.com/239308109568845/videos/678742962887867/.

Palacios, G.F., Lowenstine, L.J., Cranfield, M.R., *et al.* (2011). Human metapneumovirus infection in wild mountain gorillas, Rwanda. *Emerging Infectious Diseases*, **17**(4), 711–13.

Pallisco (2019). *Pallisco Wildlife Team Annual Report 2019*. Internal company document seen by authors. Douala, Cameroon: Pallisco and CIFM.

Palmer, A. (2018). Kill, incarcerate, or liberate? Ethics and alternatives to orangutan rehabilitation. *Biological Conservation*, **227**, 181–8. DOI: 10.1016/j.biocon.2018.09.012.

Palmer, A. (2020). *Ethical Debates in Orangutan Conservation.* London, UK: Routledge. DOI: 10.4324/9780429060533.

Palmer, C. (2010). *Animal Ethics in Context.* New York, NY: Columbia University Press.

Palombit, R.A. (1992). *Pair bonds and monogamy in wild siamang (*Hylobates syndactylus*) and white-handed gibbon (*Hylobates lar*) in northern Sumatra.* PhD thesis. Davis, CA: University of California Davis.

Palombit, R.A. (1994). Dynamic pair bonds in Hylobatids: implications regarding monogamous social systems. *Behaviour*, **128**(1), 65–101. DOI: 10.1163/156853994X00055.

Palombit, R.A. (1997). Inter- and intraspecific variation in the diets of sympatric siamang (*Hylobates syndactylus*) and Lar gibbons (*Hylobates lar*). *Folia Primatologica*, **68**(6), 321–37. DOI: 10.1159/000157260.

Panayotova-Pencheva, M.S. (2013). Parasites in captive animals: a review of studies in some European zoos. *Der Zoologische Garten*, **82**(1), 60–71. DOI: 10.1016/j.zoolgart.2013.04.005.

PanEco (2020). *PanEco Foundation Annual Report 2019.* Berg am Irchel, Switzerland: PanEco Foundation. Available at: https://issuu.com/stiftungpaneco1/docs/engl_paneco_annual_report_2019_web_single_pages_2.

Parc National des Virungas (n.d.). *Mountain Gorilla Sanctuary.* Virungas, DRC: Parc National des Virungas. Available at: https://virunga.org/wildlife/primates/mountain-gorillas/gorilla-orphans/. Accessed: October, 2022.

Park, C. (2022). Lessons learned from the World Health Organization's late initial response to the 2014–2016 Ebola outbreak in West Africa. *Journal of Public Health in Africa*, **13**(1), 1254. DOI: 10.4081/jphia.2022.1254.

Parsons, M.B., Gillespie, T.R., Lonsdorf, E.V., *et al.* (2014). Global positioning system data-loggers: a tool to quantify fine-scale movement of domestic animals to evaluate potential for zoonotic transmission to an endangered wildlife population. *PLoS ONE*, **9**(11), e110984. DOI: 10.1371/journal.pone.0110984.

Parsons, M.B., Travis, D., Lonsdorf, E.V., *et al.* (2015). Epidemiology and molecular characterization of *Cryptosporidium* spp. in humans, wild primates, and domesticated animals in the Greater Gombe Ecosystem, Tanzania. *PLoS Neglected Tropical Diseases*, **9**(2), e0003529. DOI: 10.1371/journal.pntd.0003529.

Parsons, M.B., Travis, D.A., Lonsdorf, E.V., *et al.* (2021). Antimicrobial resistance creates threat to chimpanzee health and conservation in the wild. *Pathogens*, **10**(4), 477. DOI: 10.3390/pathogens10040477.

PASA (2009). *Primate Veterinary Manual*, 2nd edn. Portland, OR: Pan African Sanctuary Alliance (PASA). Available at: https://pasa.org/wp-content/uploads/2016/05/PASA_Vet_Manual_2009_2nd_ed_677pp.pdf.

PASA (2016). *Operations Manual*, 2nd edn, December 2016. Portland, OR: Pan African Sanctuary Alliance (PASA). Available at: https://pasa.org/wp-content/uploads/2016/04/PASA_Operations_Manual_2016.pdf.

PASA (n.d.-a). *Donate to Drill Ranch.* Beaverton, OR: Pan African Sanctuary Alliance (PASA). Available at: https://pasa.org/donate-to-drill-ranch/. Accessed: October, 2020.

PASA (n.d.-b). *Pan African Sanctuary Alliance.* Beaverton, OR: Pan African Sanctuary Alliance (PASA). Available at: https://pasa.org. Accessed: November, 2022.

Patrono, L.V., Pléh, K., Samuni, L., *et al.* (2020). Monkeypox virus emergence in wild chimpanzees reveals distinct clinical outcomes and viral diversity. *Nature Microbiology*, **5**(7), 955–65. DOI: 10.1038/s41564-020-0706-0.

Patrono, L.V., Röthemeier, C., Kouadio, L., *et al.* (2022). Non-invasive genomics of respiratory pathogens infecting wild great apes using hybridisation capture. *Influenza and Other Respiratory Viruses*, **16**(5), 858–61.

Patrono, L.V., Samuni, L., Corman, V.M., *et al.* (2018). Human coronavirus OC43 outbreak in wild chimpanzees, Côte d'Ivoire, 2016. *Emerging Microbes & Infections*, **7**(1), 2–5. DOI: 10.1038/s41426-018-0121-2.

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Patz, J.A., Daszak, P., Tabor, G.M., *et al.* (2004). Unhealthy landscapes: policy recommendations on land use change and infectious disease emergence. *Environmental Health Perspectives*, **112**(10), 1092–8. DOI: 10.1289/ehp.6877.

Pauly, B.M., Varcoe, C. and Storch, J. (2012). Framing the issues: moral distress in health care. *HEC Forum*, **24**(1), 1–11. DOI: 10.1007/s10730-012-9176-y.

Payne, J. (1988). *Orang-utan Conservation in Sabah. Report 3759.* Kuala Lumpur, Malaysia: World Wide Fund for Nature (WWF), Malaysia International.

PCI (2022). *Reputational Risk Assessment for Animal Sanctuaries and Crisis Communications Planning Workbook.* Chicago, IL: Public Communications Inc (PCI). Available at: https://www.pcipr.com/resources-download/.

Peacock, L.J. and Rogers, C.M. (1959). Gestation period and twinning in chimpanzees. *Science*, **129**(3354), 959. DOI: 10.1126/science.129.3354.959.

Pearlman, L.A. and Saakvitne, K.W. (1995). Treating therapists with vicarious traumatization and secondary traumatic stress disorders. In *Compassion Fatigue: Coping with Secondary Traumatic Stress Disorder in those who Treat the Traumatized*. Philadelphia, PA: Brunner/Mazel, pp. 150–77.

Pedersen, J., Sorensen, K., Lupo, B. and Marx, L. (2019). Human–ape interactions in a zoo setting: gorillas and orangutans modify their behavior depending upon human familiarity. *Anthrozoös*, **32**(3), 319–32. DOI: 10.1080/08927936.2019.1598651.

Pederson, A.K., King, J.E. and Landau, V.I. (2005). Chimpanzee (*Pan troglodytes*) personality predicts behavior. *Journal of Research in Personality*, **39**(5), 534–49. DOI: 10.1016/j.jrp.2004.07.002.

Pence, D.B. and Ueckermann, E.A. (2002). Sarcoptic mange in wildlife. *Revue Scientifique et Technique de l'Office International des Épizooties*, **21**(2), 385–98.

Penner, L.R. (1981). Concerning threadworm (*Strongyloides stercoralis*) in great apes: lowland gorillas (*Gorilla gorilla*) and chimpanzees (*Pan troglodytes*). *Journal of Zoo Animal Medicine*, **12**(4), 128–31. DOI: 10.2307/20094543.

Pepin, J. (2021). *The Origins of AIDS*, 2nd edn. Cambridge, UK: Cambridge University Press. DOI: 10.1017/9781108767019.

PETA [People for the Ethical Treatment of Animals] (2020). Victory for animal rights groups in "USDA blackout" lawsuits. *PeTA News Releases* July 20, 2020. Available at: https://www.peta.org/media/news-releases/victory-for-animal-rights-groups-in-usda-blackout-lawsuits/.

Peters, J.C. (1966). An epizootic of monkey pox at Rotterdam Zoo. *International Zoo Yearbook*, **6**(1), 274–5. DOI: 10.1111/j.1748-1090.1966.tb01794.x.

Petrovan, S.O., Junker, J., Wordley, C.F.R., *et al.* (2018). Evidence-based synopsis of interventions, a new tool in primate conservation and research. *International Journal of Primatology*, **39**(1), 1–4. DOI: 10.1007/s10764-018-0017-y.

Phalan, B., Hayes, G., Brooks, S., *et al.* (2018). Avoiding impacts on biodiversity through strengthening the first stage of the mitigation hierarchy. *Oryx*, **52**(2), 316–24. DOI: 10.1017/S0030605316001034.

Phelps, J., Aravind, S., Cheyne, S., *et al.* (2021a). Environmental liability litigation could remedy biodiversity loss. *Conservation Letters*, **14**(6), e12821. DOI: 10.1111/conl.12821.

Phelps, J., Fajrini, R., Nagara, G. and Saputra, R. (2021b). *Pioneering Civil Lawsuits for Harm to Threatened Species: A Guide to Claims with Examples from Indonesia.* UK AID, Lancaster University, Indonesian Environmental Law Institute, Auriga Nusantara, LIPI. Available at: https://www.conservation-litigation.org/resources.

Phelps, J., Fajrini, R., Nagara, G. and Saputra, R. (2021c). *Policy Brief. Civil Lawsuits: A Novel Response to Illegal Wildlife Trade.* UK AID, Lancaster University, Indonesian Environmental Law Institute, Auriga Nusantara, LIPI. Available at: https://www.conservation-litigation.org/resources.

Phelps, K.L. and Kingston, T. (2018). Environmental and biological context modulates the physiological stress response of bats to human disturbance. *Oecologia*, **188**(1), 41–52. DOI: 10.1007/s00442-018-4179-2.

Philippa, J. and Dench, R.J. (2019). Infectious diseases of orangutans in their home ranges and in zoos. In *Fowler's Zoo and Wild Animal Medicine Current Therapy, Volume 9*, ed. R. E. Miller, N. Lamberski and P. Calle. St Louis, MO: Elsevier, pp. 565–73.

Pierce, J. and Bekoff, M. (2018). A postzoo future: why welfare fails animals in zoos. *Journal of Applied Animal Welfare Science*, **21**(S1), 43–8. DOI: 10.1080/10888705.2018.1513838.

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Pigott, D.M., Golding, N., Mylne, A., *et al.* (2014). Mapping the zoonotic niche of Ebola virus disease in Africa. *eLife*, **3**, e04395. DOI: 10.7554/eLife.04395.

Pigott, D.M., Millear, A.I., Earl, L., *et al.* (2016). Updates to the zoonotic niche map of Ebola virus disease in Africa. *eLife*, **5**, e16412. DOI: 10.7554/eLife.16412.

Pinillos, R.G., Appleby, M.C., Manteca, X., *et al.* (2016). One Welfare: a platform for improving human and animal welfare. *Veterinary Record*, **179**(16), 412–13. DOI: 10.1136/vr.i5470.

Plantier, J.C., Leoz, M., Dickerson, J.E., *et al.* (2009). A new human immunodeficiency virus derived from gorillas. *Nature Medicine*, **15**(8), 871–2. DOI: 10.1038/nm.2016.

Plowright, R.K., Peel, A.J., Streicker, D.G., *et al.* (2016). Transmission or within-host dynamics driving pulses of zoonotic viruses in reservoir–host populations. *PLoS Neglected Tropical Diseases*, **10**(8), e0004796. DOI: 10.1371/journal.pntd.0004796.

Plowright, R.K., Sokolow, S.H., Gorman, M.E., Daszak, P. and Foley, J.E. (2008). Causal inference in disease ecology: investigating ecological drivers of disease emergence. *Frontiers in Ecology and the Environment*, **6**(8), 420–9. DOI: 10.1890/070086.

Plumptre, A., Hart, J.A., Hicks, T.C., *et al.* (2016a). Pan troglodytes *ssp.* schweinfurthii *(errata version published in 2016). The IUCN Red List of Threatened Species 2016: e.T15937A102329417.* Gland, Switzerland: International Union for Conservation of Nature (IUCN). DOI: 10.2305/IUCN.UK.2016-2.RLTS.T15937A17990187.en.

Plumptre, A., Kayitare, A., Rainer, H., *et al.* (2004). *The Socio-Economic Status of People Living Near Protected Areas in the Central Albertine Rift.* Albertine Technical Reports 4. Wildlife Conservation Society (WCS), International Gorilla Conservation Programme (IGCP) and CARE International.

Plumptre, A.J., Kirkby, A., Spira, C., *et al.* (2021). Changes in Grauer's gorilla (*Gorilla beringei graueri*) and other primate populations in the Kahuzi-Biega National Park and Oku Community Reserve, the heart of Grauer's gorilla global range. *American Journal of Primatology*, **83**(7), e23288. DOI: 10.1002/ajp.23288.

Plumptre, A., Nixon, S., Caillaud, D., *et al.* (2016b). Gorilla beringei *ssp.* graueri *(errata version published in 2016). The IUCN Red List of Threatened Species 2016: e.T39995A102328430.* Gland, Switzerland: International Union for Conservation of Nature (IUCN). DOI: 10.2305/IUCN.UK.2016-2.RLTS.T39995A17989838.en.

Plumptre, A., Robbins, M.M. and Williamson, E.A. (2019). Gorilla beringei. *The IUCN Red List of Threatened Species 2019: e.T39994A115576640.* Gland, Switzerland: International Union for Conservation of Nature (IUCN). DOI: 10.2305/IUCN.UK.2019-1.RLTS.T39994A115576640.en.

Plumptre, A.J., Rose, R., Nangendo, G., *et al.* (2010). *Eastern Chimpanzee (*Pan troglodytes schweinfurthii*): Status Survey and Conservation Action Plan 2010–2020.* Gland, Switzerland: International Union for Conservation of Nature (IUCN). Available at: https://portals.iucn.org/library/sites/library/files/documents/2010-023.pdf.

Plumptre, A.J. and Williamson, E.A. (2001). Conservation-oriented research in the Virunga region. In *Mountain Gorillas: Three Decades of Research at Karisoke*, ed. K. J. Stewart, M. M. Robbins and P. Sicotte. Cambridge, UK: Cambridge University Press, pp. 361–90. DOI: 10.1017/CBO9780511661631.015.

PMP (n.d.). *Primate Microbiome Project*. Primate Microbiome Project (PMP). Available at: https://www.primatemicrobiome.org/. Accessed: September, 2022.

Polygeia (2016). *Lessons from Ebola Affected Communities: Being Prepared for Future Health Crises.* London, UK: Africa All Party Parliamentary Group (Africa APPG). Available at: https://research.monash.edu/en/publications/lessons-from-ebola-affected-communities-being-prepared-for-future.

Pomerantz, O. and Terkel, J. (2009). Effects of positive reinforcement training techniques on the psychological welfare of zoo-housed chimpanzees (*Pan troglodytes*). *American Journal of Primatology*, **71**(8), 687–95. DOI: 10.1002/ajp.20703.

Pontzer, H., Brown, M.H., Raichlen, D.A., *et al.* (2016). Metabolic acceleration and the evolution of human brain size and life history. *Nature*, **533**(7603), 390–2. DOI: 10.1038/nature17654.

Potapov, P., Hansen, M.C., Laestadius, L., *et al.* (2017). The last frontiers of wilderness: tracking loss of intact forest landscapes from 2000 to 2013. *Science Advances*, **3**(1), e1600821. DOI: 10.1126/sciadv.1600821.

Power, M. (1986). The foraging adaptation of chimpanzees, and the recent behaviors of the provisioned apes in Gombe and Mahale National Parks, Tanzania. *Human Evolution*, **1**(3), 251–65. DOI: 10.1007/BF02436583.

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Pozo, A.A. (2020). Las multas por maltrato animal en Castilla-La Mancha se multiplican por diez tras renovar su ley de hace 30 años. *El Diario.es*, August 3, 2020. Available at: https://www.eldiario.es/castilla-la-mancha/multas-maltrato-animal-castilla-multiplican-diez-ley-30-anos_1_6144274.html.

Prado-Martinez, J., Sudmant, P.H., Kidd, J.M., *et al.* (2013). Great ape genetic diversity and population history. *Nature*, **499**(7459), 471–5. DOI: 10.1038/nature12228.

Prak, D. (2020). Association Papaye International. *LinkedIn*, September 17, 2020. Available at: https://www.linkedin.com/pulse/papaye-nternational-doroth%25C3%25A9e-prak?fbclid=IwARodfFpIpQXETU8-pLVVQS6H-6FCUU7_HhdJUhGusFeMmcPwvfydFc8i6BME.

Prasetyo, D., Ancrenaz, M., Morrogh-Bernard, H.C., *et al.* (2009). Nest building in orangutans. In *Geographic Variation in Behavioral Ecology and Conservation*, ed. S. Wich, S. Utami, T. Setia and C. van Schaik. Oxford, UK: Oxford University Press, pp. 269–78.

Prinz, J. (2007). *The Emotional Construction of Morals.* Oxford, UK: Oxford University Press.

Prisner-Levyne, Y. (2020). Trophy hunting, canned hunting, tiger farming, and the questionable relevance of the conservation narrative grounding international wildlife law. *Journal of International Wildlife Law & Policy*, **23**(4), 239–85. DOI: 10.1080/13880292.2020.1866236.

Project Chimps (2020). *Dr Steve Ross' Project ChimpCARE Chimpanzee Welfare Assessment and Project Chimps' Response.* Morganton, GA: Project Chimps. Available at: https://projectchimps.org/wp-content/uploads/2020/11/Ross-Assessment-Response-Final.pdf.

Projet Gorille Fernan-Vaz (n.d.). *Our Gorillas.* Omboué, Gabon: Projet Gorille Fernan-Vaz. Available at: https://gorillasgabon.org/gorillas/our-gorillas/. Accessed: October, 2020.

Pruetz, J.D. and Bertolani, P. (2009). Chimpanzee (*Pan troglodytes verus*) behavioral responses to stresses associated with living in a savanna-mosaic environment: Implications for hominin adaptations to open habitats. *PaleoAnthropology*, 252–62.

Pruetz, J.D. and Herzog, N.M. (2017). Savanna chimpanzees at Fongoli, Senegal, navigate a fire landscape. *Current Anthropology*, **58**(S16), S337–50. DOI: 10.1086/692112.

Pusey, A.E., Wilson, M.L. and Collins, D.A. (2008). Human impacts, disease risk, and population dynamics in the chimpanzees of Gombe National Park, Tanzania. *American Journal of Primatology*, **70**(8), 738–44. DOI: 10.1002/ajp.20567.

Qin, S., Golden Kroner, R.E., Cook, C., *et al.* (2019). Protected area downgrading, downsizing, and degazettement as a threat to iconic protected areas. *Conservation Biology*, **33**(6), 1275–85. DOI: 10.1111/cobi.13365.

QRA (2011). *Rebuilding Grantham Together.* Brisbane, Australia: Queensland Reconstruction Authority (QRA). Available at: https://www.qra.qld.gov.au/news-case-studies/case-studies/case-study-rebuilding-grantham-together-2011.

Quick, J., Loman, N.J., Duraffour, S., *et al.* (2016). Real-time, portable genome sequencing for Ebola surveillance. *Nature*, **530**(7589), 228–32. DOI: 10.1038/nature16996.

Quijano, L., Keeney, A., Schnackenberg, D., *et al.* (2016). *Creating a Community Animal Disaster Plan: A Step-By-Step Guide to Building an Animal Disaster Plan and Developing the Necessary Response Capacity for Your Community.* Fort Collins, CO: Colorado State University. Available at: https://hdl.handle.net/10217/198690.

Rabinowitz, P.M., Pappaioanou, M., Bardosh, K.L. and Conti, L. (2018). A planetary vision for one health. *BMJ Global Health*, **3**(5), e001137. DOI: 10.1136/bmjgh-2018-001137.

Rack, J., Wichmann, O., Kamara, B., *et al.* (2005). Risk and spectrum of diseases in travelers to popular tourist destinations. *Journal of Travel Medicine*, **12**(5), 248–53. DOI: 10.2310/7060.2005.12502.

Radonić, A., Metzger, S., Dabrowski, P.W., *et al.* (2014). Fatal monkeypox in wild-living sooty mangabey, Côte d'Ivoire, 2012. *Emerging Infectious Diseases*, **20**(6), 1009–11. DOI: 10.3201/eid2006.13-1329.

Rainer, H., Lanjouw, A., Llano Sánchez, K. and Banes, G.L. (2020). Drivers of the illegal trade in great apes. In *State of the Apes: Killing, Capture, Trade and Conservation*, ed. Arcus Foundation. Cambridge UK: Cambridge University Press, pp. 96–129. Available at: https://www.stateoftheapes.com/volume-4-killing-capture-trade/.

Rainfer (n.d.). *Los Primates.* Madrid, Spain: Centro de Rescate de Primates Rainfer. Available at: http://rainfer.org/los-primates-2/. Accessed: October, 2020.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 15 Nov 2026 at 20:46:16, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781009071727.013

Rakotonanahary, R.J.L., Andriambolamanana, H., Razafinjato, B., *et al.* (2021). Integrating health systems and science to respond to COVID-19 in a model district of rural Madagascar. *Frontiers in Public Health*, **9**, July 21, 2021. DOI: 10.3389/fpubh.2021.654299.

Ramsay, E.C., Stair, E.L., Castro, A.E. and Marks, M.I. (1982). Fatal herpesvirus hominis encephalitis in a white-handed gibbon. *Journal of the American Veterinary Medical Association*, **181**(11), 1429–30.

Rasmussen, E.B., Newland, M.C. and Hemmelman, E. (2020). The relevance of operant behavior in conceptualizing the psychological well-being of captive animals. *Perspectives on Behavior Science*, **43**(3), 617–54.

Razanatsoa, E., Andriantsaralaza, S., Holmes, S.M., *et al.* (2021). Fostering local involvement for biodiversity conservation in tropical regions: lessons from Madagascar during the COVID-19 pandemic. *Biotropica*, **53**(4), 994–1003. DOI: 10.1111/btp.12967.

Read, J. (2020). Uganda reopens with extra Covid precautions to protect its mountain gorillas. *Forbes*, October 5, 2020. Available at: https://www.forbes.com/sites/johannaread/2020/10/05/uganda-reopens-with-extra-covid-precautions-to-protect-its-mountain-gorillas/?sh=32518443efea.

Reddacliff, L.A., Kirkland, P.D., Hartley, W.J. and Reece, R.L. (1997). Encephalomyocarditis virus infections in an Australian Zoo. *Journal of Zoo and Wildlife Medicine*, **28**(2), 153–7.

Redshaw, S., Ingham, V., Hicks, J. and Millynn, J. (2017). Emergency preparedness through community sector engagement in the Blue Mountains. *Australian Journal of Emergency Management*, **32** (2), 35–40. DOI: https://knowledge.aidr.org.au/media/3657/ajem-32-02-17.pdf.

Refisch, J. (2021). COVID-19, climate change threaten last refuge of the mountain gorilla. *UN Environment Programme News and Stories*, September 23, 2021. Available at: https://www.unep.org/news-and-stories/story/covid-19-climate-change-threaten-last-refuge-mountain-gorilla.

Refisch, J. and Jenson, J. (2016). Transboundary collaboration in the Greater Virunga Landscape: from gorilla conservation to conflict-sensitive transboundary landscape management. In *Governance, Natural Resources and Post-Conflict Peacebuilding*, ed. C. Bruch, C. Muffett and S. Nichols. London, UK: Routledge, pp. 825–41. Available at: https://www.taylorfrancis.com/chapters/edit/10.4324/9780203109793-39/transboundary-collaboration-greater-virunga-landscape-gorilla-conservation-conflict-sensitive-transboundary-landscape-management-johannes-refisch-johann-jenson.

Reichard, U. (1995). Extra-pair copulations in a monogamous gibbon (*Hylobates lar*). *Ethology*, **100**(2), 99–112. DOI: 10.1111/j.1439-0310.1995.tb00319.x.

Reid, M.J.C. (2020). Is 2020 the year when primatologists should cancel fieldwork? *American Journal of Primatology*, **82**(8), e23161. DOI: 10.1002/ajp.23161.

Reinartz, G., Ingmanson, E.J. and Vervaecke, H. (2013). *Pan paniscus gracile* chimpanzee (bonobo, pygmy chimpanzee). In *Mammals of Africa. Volume II: Primates*, ed. T. M. Butynski, J. Kingdon and J. Kalina. London, UK: Bloomsbury Publishing, pp. 64–9.

ReliefWeb (2015). *Joint Statement on Ebola Response and WHO Reforms.* Geneva, Switzerland: United Nations Office for the Coordination of Humanitarian Affairs (OCHA). Available at: https://reliefweb.int/report/sierra-leone/joint-statement-ebola-response-and-who-reforms.

Research Animal Resources (n.d.). *Anesthesia Guidelines: Non-Human Primates.* St Paul, MN: University of Minnesota. Available at: https://research.umn.edu/units/rar/guidelines/anesthesia-non-human-primates. Accessed: May, 2023.

Resolute (2019). *Mine Gold. Create Value. 2019 Annual Report.* Perth, Australia: Resolute Mining Ltd. Available at: https://www.rml.com.au/investors/reports/annual-reports/.

ResponsibleSteel (2022). *ResponsibleSteel International Standard: Version 2.0.* Newcastle West, Australia: ResponsibleSteel. Available at: https://www.responsiblesteel.org/wp-content/uploads/2022/09/ResponsibleSteel-Standard-2.0.pdf.

Reuter, K.E., Andriantsaralaza, S., Hansen, M.F., *et al.* (2022). Impact of the COVID-19 pandemic on primate research and conservation. *Animals*, **12**(9), 1214. DOI: 10.3390/ani12091214.

Reuters and Gorman, S. (2021). Gorillas at San Diego Zoo Safari Park diagnosed with COVID-19. *Reuters*, January 11, 2021. Available at: https://www.reuters.com/business/healthcare-pharmaceuticals/two-gorillas-san-diego-zoo-test-positive-covid-19-2021-01-11/.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 15 Nov 2026 at 20:46:16, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781009071727.013

Reuters Staff (2021). Gorilla loses appetite, lions develop cough after catching COVID-19 at Prague Zoo. *Reuters*, February 25, 2021. Available at: https://www.reuters.com/article/us-health-coronavirus-czech-zoo-idUSKBN2AP2GI.

Richards, P. (2016). *Ebola: How a People's Science Helped End an Epidemic*. London, UK: Zed Books. DOI: 10.5040/9781350219779.

Richardson, H. (2021). For Africa's great apes, a post pandemic future looks beyond tourism. *Mongabay*, June 9, 2021. Available at: https://news.mongabay.com/2021/06/for-africas-great-apes-a-post-pandemic-future-looks-beyond-tourism.

Richeson, J.T., Hughes, H.D., Broadway, P.R. and Carroll, J.A. (2019). Vaccination management of beef cattle: delayed vaccination and endotoxin stacking. *Veterinary Clinics of North America: Food Animal Practice*, **35**(3), 575–92. DOI: 10.1016/j.cvfa.2019.07.003.

Rideout, B.A., Gardiner, C., Stalis, I.H., *et al*. (1997). Fatal Infections with *Balamuthia mandrillaris* (a free-living amoeba) in gorillas and other Old World primates. *Veterinary Pathology*, **34**(1), 15–22. DOI: 10.1177/030098589703400103.

Riede, T., Tokuda, I.T., Munger, J.B. and Thomson, S.L. (2008). Mammalian laryngeal air sacs add variability to the vocal tract impedance: physical and computational modeling. *Journal of the Acoustical Society of America*, **124**(1), 634–47. DOI: 10.1121/1.2924125.

Rietkerk, F. and Pereboom, J.J.M. (2018). Editorial: Conservation of great apes. Zoo contributions towards improving management and well-being of great apes: augmenting knowledge to safeguard our closest relative. *International Zoo Yearbook*, **52**(1), 9–15. DOI: 10.1111/izy.12202.

Rijksen, H.D. (1978). *A field study on Sumatran orangutans (*Pongo pygmaeus abelii *Lesson 1827). Ecology, behaviour and conservation.* PhD thesis. Wageningen, the Netherlands: Nature Conservation Department, Agricultural University Wageningen. Available at: https://library.wur.nl/WebQuery/wurpubs/fulltext/209957.

Rijksen, H.D. and Meijaard, E. (1999). *Our Vanishing Relative? The Status of Wild Orangutans at the Close of the Twentieth Century.* Dordrecht, the Netherlands: Kluwer Academic.

Rima, B., Collins, P., Easton, A., *et al*. (2017). ICTV virus taxonomy profile: Pneumoviridae. *Journal of General Virology*, **98**(12), 2912–13. DOI: 10.1099/jgv.0.000959.

Ringer, G.D. (2002). Gorilla tourism: Uganda uses tourism to recover from decades of violent conflict. *Alternatives Journal: Canadian Environmental Ideas and Action*, **28**(4), 16–19.

Rio Tinto Simfer S.A. (2012a). *Simandou Social and Environmental Impact Assessment (SEIA). Volume I. Mine. Chapter 1: Introduction.* Conakry, Republic of Guinea, and London, UK: Rio Tinto Simfer S.A. Available at: https://icsid.worldbank.org/sites/default/files/parties_publications/C3765/Respondent%27s%20Counter-Memorial/Pi%C3%A8ces%20factuelles/R-0140.pdf.

Rio Tinto Simfer S.A. (2012b). *Simandou Social and Environmental Impact Assessment (SEIA). Volume V. Social and Environmental Management Plan.* Conakry, Republic of Guinea, and London, UK: Rio Tinto Simfer S.A.

Rioja-Lang, F., Bacon, H., Connor, M. and Dwyer, C.M. (2020a). Prioritisation of animal welfare issues in the UK using expert consensus. *Veterinary Record*, **187**(12), 490. DOI: 10.1136/vr.105964.

Rioja-Lang, F.C., Connor, M., Bacon, H.J., Lawrence, A.B. and Dwyer, C.M. (2020b). Prioritization of farm animal welfare issues using expert consensus. *Frontiers in Veterinary Science*, **6**, 495. DOI: 10.3389/fvets.2019.00495.

Riva, H.G., Zordan, M.A. and Sánchez, C.R. (2020). The current state of zoological medicine in zoos and aquariums in Latin America. *International Zoo Yearbook*, **54**(1), 202–18. DOI: 10.1111/izy.12251.

Rivas, M.L., Albion, I., Bernal, B., *et al*. (2022). The plastic pandemic: COVID-19 has accelerated plastic pollution, but there is a cure. *Science of The Total Environment*, **847**, 157555. DOI: 10.1016/j.scitotenv.2022.157555.

Rivera, S.N., Knight, A. and McCulloch, S.P. (2021). Surviving the wildlife trade in Southeast Asia: reforming the "disposal" of confiscated live animals under CITES. *Animals*, **11**(2), 439. DOI: 10.3390/ani11020439.

RNZ (2020). Covid impact: Auckland Zoo receives almost $3m from government. *RNZ* [Radio New Zealand], September 27, 2020. Available at: https://www.rnz.co.nz/news/national/427019/covid-impact-auckland-zoo-receives-almost-3m-from-government.

Robbins, A.M., Manguette, M.L., Breuer, T., *et al*. (2022). Population dynamics of western gorillas at Mbeli Bai. *PLoS ONE*, **17**(10), e0275635. DOI: 10.1371/journal.pone.0275635.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 15 Nov 2026 at 20:46:16, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781009071727.013

Robbins, A.M., Stoinski, T., Fawcett, K. and Robbins, M.M. (2011a). Lifetime reproductive success of female mountain gorillas. *American Journal of Physical Anthropology*, **146**(4), 582–93. DOI: 10.1002/ajpa.21605.

Robbins, M.M. (2011). Gorillas: diversity in ecology and behavior. In *Primates in Perspective*, ed. C. J. Campbell, A. Fuentes, K. C. MacKinnon, S. Bearder and R. M. Stumpf. Oxford, UK: Oxford University Press, pp. 326–39.

Robbins, M.M. (2021). Assessing attitudes towards gorilla conservation via employee interviews. *American Journal of Primatology*, **83**(4), e23191. DOI: 10.1002/ajp.23191.

Robbins, M.M. and Boesch, C., ed. (2011). *Among African Apes: Stories and Photos from the Field*. Berkeley, CA: University of California Press.

Robbins, M.M. and Robbins, A.M. (2018). Variation in the social organization of gorillas: life history and socio-ecological perspectives. *Evolutionary Anthropology: Issues, News, and Reviews*, **27**, 218–33. DOI: 10.1002/evan.21721.

Robbins, M.M., Gray, M., Fawcett, K.A., *et al.* (2011b). Extreme conservation leads to recovery of the Virunga mountain gorillas. *PLoS ONE*, **6**(6), 1–10. DOI: 10.1371/journal.pone.0019788.

Robbins, M.M., Gray, M., Kagoda, E. and Robbins, A.M. (2009). Population dynamics of the Bwindi mountain gorillas. *Biological Conservation*, **142**(12), 2886–95. DOI: 10.1016/j.biocon.2009.07.010.

Robbins, M.M., Ortmann, S. and Seiler, N. (2022). Dietary variability of western gorillas (*Gorilla gorilla gorilla*). *PLoS ONE*, **17**(8), e0271576. DOI: 10.1371/journal.pone.0271576.

Roberts, L. (2019). A prescription for Madagascar's broken health system: data and a focus on details. *Science Magazine*, February 18, 2019. Available at: https://www.sciencemag.org/news/2019/02/prescription-madagascar-s-broken-health-system-data-and-focus-details.

Robertson, B.H. and Margolis, H.S. (2002). Primate hepatitis B viruses – genetic diversity, geography and evolution. *Reviews in Medical Virology*, **12**(3), 133–41. DOI: 10.1002/rmv.348.

Robins, J.G., Husson, S., Fahroni, A., *et al.* (2019). Implanted radio telemetry in orangutan reintroduction and post-release monitoring and its application in other ape species. *Frontiers in Veterinary Science*, **6**, 111. DOI: 10.3389/fvets.2019.00111.

Robson, S.L. and Wood, B. (2008). Hominin life history: reconstruction and evolution. *Journal of Anatomy*, **212**(4), 394–425. DOI: 10.1111/j.1469-7580.2008.00867.x.

Rodriguez, M., Pascual, M., Wingard, J., *et al.* (2019). *Legal Protection of Great Apes & Gibbons: Compilation of Country Profiles for 17 Range Countries.* Missoula, MT: Legal Atlas, LLC. DOI: 10.13140/RG.2.2.13189.88800.

Rodriguez-Morales, A.J. and Schlagenhauf, P. (2014). Zoonoses and travel medicine: "one world – one health". *Travel Medicine and Infectious Disease*, **12**(6, Part A), 555–6. DOI: 10.1016/j.tmaid.2014.11.003.

Roe, D. and Booker, F. (2019). Engaging local communities in tackling illegal wildlife trade: a synthesis of approaches and lessons for best practice. *Conservation Science and Practice*, **1**(5), e26. DOI: 10.1111/csp2.26.

Roe, D. and Urquhart, P. (2001). Pro-poor tourism: harnessing the world's largest industry for the world's poor. Presented at: *World Summit on Sustainable Development, Johannesburg, South Africa.* International Institute for Environment and Development (IIED) in collaboration with the Regional and International Networking Group (RING).

Roger, F., Caron, A., Morand, S., *et al.* (2016). One Health and EcoHealth: the same wine in different bottles? *Infection Ecology & Epidemiology*, **6**(1), 30978. DOI: 10.3402/iee.v6.30978.

Rohr, J.R., Barrett, C.B., Civitello, D.J., *et al.* (2019). Emerging human infectious diseases and the links to global food production. *Nature Sustainability*, **2**(6), 445–56. DOI: 10.1038/s41893-019-0293-3.

Romero, L.M., Dickens, M.J. and Cyr, N.E. (2009). The reactive scope model – a new model integrating homeostasis, allostasis, and stress. *Hormones and Behavior*, **55**(3), 375–89. DOI: 10.1016/j.yhbeh.2008.12.009.

Romero, L.M. and Wingfield, J.C. (2015). *Tempests, Poxes, Predators, and People: Stress in Wild Animals and How They Cope.* Oxford, UK: Oxford University Press. DOI: 10.1093/acprof:oso/9780195366693.001.0001.

Romero-Alvarez, D., Peterson, A.T., Salzer, J.S., *et al.* (2020). Potential distributions of *Bacillus anthracis* and *Bacillus cereus* biovar *anthracis* causing anthrax in Africa. *PLoS Neglected Tropical Diseases*, **14**(3), e0008131. DOI: 10.1371/journal.pntd.0008131.

Ronfot, D. (2016). *Animals in limbo: the importance of recognizing welfare of confiscated wild animals. An investigation in Thai governmental wildlife confiscation facilities.* MA thesis. Exeter, UK: University of Exeter.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 15 Nov 2026 at 20:46:16, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781009071727.013

Rose, A.L. (2011). Bonding, biophilia, biosynergy, and the future of primates in the wild. *American Journal of Primatology*, **73**(3), 245–52. DOI: 10.1002/ajp.20888.

Rosenblum, I.Y. and Coulston, F. (1983). Impaired renal function in diabetic chimpanzees (*Pan troglodytes*). *Experimental Molecular Pathology*, **38**(2), 224–9. DOI: 10.1016/0014-4800(83)90087-4.

Ross, S.R. (2020). Chimpanzee welfare in the context of science, policy, and practice. In *Chimpanzees in Context: A Comparative Perspective on Chimpanzee Behavior, Cognition, Conservation, and Welfare*, ed. L. M. Hopper and S. R. Ross. Chicago, IL: University of Chicago Press, pp. 552–84. DOI: 10.7208/chicago/9780226728032.003.0024.

Ross, S.R., Hansen, B.K., Hopper, L.M. and Fultz, A. (2019). A unique zoo-sanctuary collaboration for chimpanzees. *American Journal of Primatology*, **81**(5), e22941. DOI: 10.1002/ajp.22941.

Ross, S.R. and Leinwand, J.G. (2020). A review of research in primate sanctuaries. *Biology Letters*, **16**(4), 20200033. DOI: 10.1098/rsbl.2020.0033.

Ross, S.R., Lukas, K.E., Lonsdorf, E.V., *et al*. (2008). Inappropriate use and portrayal of chimpanzees. *Science*, **319**(5869), 1487. DOI: 10.1126/science.1154490.

Ross, S.R., Vreeman, V.M. and Lonsdorf, E.V. (2011). Specific image characteristics influence attitudes about chimpanzee conservation and use as pets. *PLoS ONE*, **6**(7), e22050. DOI: 10.1371/journal.pone.0022050.

Ross, S.R., Wagner, K.E., Schapiro, S.J. and Hau, J. (2010). Ape behavior in two alternating environments: comparing exhibit and short-term holding areas. *American Journal of Primatology*, **72**(11), 951–9. DOI: 10.1002/ajp.20857.

Roth, J.A. (2011). Veterinary vaccines and their importance to animal health and public health. *Procedia in Vaccinology*, **5**, 127–36. DOI: 10.1016/j.provac.2011.10.009.

Roth, T.S., Rianti, P., Fredriksson, G.M., Wich, S.A. and Nowak, M.G. (2020). Grouping behavior of Sumatran orangutans (*Pongo abelii*) and Tapanuli orangutans (*Pongo tapanuliensis*) living in forest with low fruit abundance. *American Journal of Primatology*, **82**(5), e23123. DOI: 10.1002/ajp.23123.

Rouquet, P., Froment, J.M., Bermejo, M., *et al*. (2005). Wild animal mortality monitoring and human Ebola outbreaks, Gabon and Republic of Congo, 2001–2003. *Emerging Infectious Diseases*, **11**(2), 283–90. DOI: 10.3201/eid1102.040533.

Rowe, M.L., Whiteley, P.L. and Carver, S. (2019). The treatment of sarcoptic mange in wildlife: a systematic review. *Parasites & Vectors*, **12**(1), 99. DOI: 10.1186/s13071-019-3340-z.

Roxana (2021). La fondation Mona: Un sanctuaire de chimpanzés en Espagne. *Sh Barcelone*, December 3, 2021. Available at: https://www.shbarcelona.fr/blog/fr/la-fondation-mona-un-sanctuaire-de-chimpanzes-en-espagne/.

Royal Commission into National Natural Disaster Arrangements (2020a). Chapter 10. Community education. In *Royal Commission into National Natural Disaster Arrangements Report 28 October 2020*, ed. Royal Commission into National Natural Disaster Arrangements. Canberra, Australia: Commonwealth of Australia, pp. 245–51. Available at: https://naturaldisaster.royalcommission.gov.au/publications/html-report/chapter-10.

Royal Commission into National Natural Disaster Arrangements (2020b). National information systems. In *Interim Observations 31 August 2020*, ed. Royal Commission into National Natural Disaster Arrangements. Canberra, Australia: Commonwealth of Australia, pp. 12–13. Available at: https://naturaldisaster.royalcommission.gov.au/publications/interim-observations-1/interim-observations-4.

RSPO (2020). *RSPO Principle Criteria for the Production of Sustainable Palm Oil 2018, Revised 01 February 2020*. Kuala Lumpar, Malyasia: Roundtable on Sustainable Palm Oil (RSPO). Available at: https://rspo.org/resources/?category=rspo-principle-criteria-for-the-production-of-sustainable-palm-oil-2018.

RSPO (n.d.). *Our Impact: Outcomes and Impacts*. Kuala Lumpar, Malyasia: Roundtable on Sustainable Palm Oil (RSPO). Available at: https://rspo.org/our-impact/outcomes-and-impacts/. Accessed: December, 2022.

Ruckert, A., Zinszer, K., Zarowsky, C., Labonté, R. and Carabin, H. (2020). What role for One Health in the COVID-19 pandemic? *Canadian Journal of Public Health*, **111**(5), 641–4. DOI: 10.17269/s41997-020-00409-z.

Rudicell, R.S., Holland Jones, J., Wroblewski, E.E., *et al*. (2010). Impact of simian immunodeficiency virus infection on chimpanzee population dynamics. *PLoS Pathogens*, **6**(9), e1001116. DOI: 10.1371/journal.ppat.1001116.

Rüegg, S.R., Häsler, B. and Zinsstag, J. (2018). *Integrated Approaches to Health: A Handbook for the Evaluation of One Health*. Wageningen, the Netherlands: Wageningen Academic Publishers. DOI: 10.3920/978-90-8686-875-9.

Runhovde, S.R. (2022). Mind the gap! Decoupling between policy and practice in the policing of illegal wildlife trade. *International Journal of Offender Therapy and Comparative Criminology*, **66**(4), 369–88. DOI: 10.1177/0306624x20967953.

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Rushmore, J., Caillaud, D., Matamba, L., *et al.* (2013). Social network analysis of wild chimpanzees provides insights for predicting infectious disease risk. *Journal of Animal Ecology*, **82**(5), 976–86. DOI: 10.1111/1365-2656.12088.

Russon, A.E. (2004). Aristotle's rubicon. In *Orangutans: Wizards of the Rainforest*, ed. A. E. Russon. Toronto, Canada: Key Porter Publications.

Russon, A.E. (2009). Orangutan rehabilitation and reintroduction: successes, failures and role in conservation. In *Orangutans: Geographic Variation in Behavioral Ecology and Conservation*, ed. S. A. Wich, S. S. Utami-Atmoko, T. Mitra Setia and C. P. van Schaik. Oxford, UK: Oxford University Press, pp. 327–50.

Russon, A.E., Kuncoro, P. and Ferisa, A. (2015). Orangutan behavior in Kutai National Park after drought and fire damage: adjustments to short- and long-term natural forest regeneration. *American Journal of Primatology*, **77**(12), 1276–89. DOI: 10.1002/ajp.22480.

Russon, A.E., Smith, J.J. and Adams, L. (2016). Managing human–orangutan relationships in rehabilitation. In *Ethnoprimatology: Primate Conservation in the 21st Century*, ed. M. Waller. Cham, Switzerland: Springer, pp. 233–58. DOI: 10.1007/978-3-319-30469-4_13.

Russon, A.E. and Susilo, A. (2014). Orangutan tourism and conservation: 35 years' experience. In *Primate Tourism: A Tool for Conservation?*, ed. A. E. Russon and J. Wallis. Cambridge, UK: Cambridge University Press, pp. 76–97. DOI: 10.1017/CBO9781139087407.007.

Russon, A.E. and Wallis, J. (2014a). Primate tourism as a conservation tool: a review of the evidence, implications, and recommendations. In *Primate Tourism: A Tool for Conservation?*, ed. A. E. Russon and J. Wallis. Cambridge, UK: Cambridge University Press, pp. 313–32. DOI: 10.1017/CBO9781139087407.024.

Russon, A.E. and Wallis, J. (2014b). Reconsidering primate tourism as a conservation tool: an introduction to the issues. In *Primate Tourism: A Tool for Conservation?*, ed. A. E. Russon and J. Wallis. Cambridge, UK: Cambridge University Press, pp. 3–18. DOI: 10.1017/CBO9781139087407.002.

Russon, A.E., Wich, S.A., Ancrenaz, M., *et al.* (2009). Geographic variation in orangutan diets. In *Orangutans: Geographic Variation in Behavioral Ecology and Conservation*, ed. S. A. Wich, S. Utami-Atmoko, T. Mitra Setia and C. P. van Schaik. Oxford, UK: Oxford University Press, pp. 135–56.

Rwanda Development Board (2017). Increase of gorilla permit tariffs. *Rwanda Development Board*, May 6, 2017. Available at: https://rdb.rw/increase-of-gorilla-permit-tariffs/.

Rwego, I.B., Isabirye-Basuta, G., Gillespie, T.R. and Goldberg, T.L. (2008). Gastrointestinal bacterial transmission among humans, mountain gorillas, and livestock in Bwindi Impenetrable National Park, Uganda. *Conservation Biology*, **22**(6), 1600–7.

Ryan, S.J. and Walsh, P.D. (2011). Consequences of non-intervention for infectious disease in African great apes. *PLoS ONE*, **6**(12), e29030. DOI: 10.1371/journal.pone.0029030.

Sabuhoro, E., Wright, B., Munanura, I.E., Nyakabwa, I.N. and Nibigira, C. (2017). The potential of ecotourism opportunities to generate support for mountain gorilla conservation among local communities neighboring Volcanoes National Park in Rwanda. *Journal of Ecotourism*, **20**(1), 1–17. DOI: 10.1080/14724049.2017.1280043.

Sadler, B., Dusik, J., Fischer, T., *et al.* (2010). *Handbook of Strategic Environmental Assessment*, 1st edn. London, UK: Routledge.

Sakamoto, M., Sasaki, D., Ono, Y., Makino, Y. and Kodama, E.N. (2020). Implementation of evacuation measures during natural disasters under conditions of the novel coronavirus (COVID-19) pandemic based on a review of previous responses to complex disasters in Japan. *Progress in Disaster Science*, **8**, 100127. DOI: 10.1016/j.pdisas.2020.100127.

Sakulwira, K., Theamboonlers, A., Charoonrut, P., Ratanakorn, P. and Poovorawan, Y. (2002). Serological evidence of herpesvirus infection in gibbons. *BMC Microbiology*, **2**, 11. DOI: 10.1186/1471-2180-2-11.

Sakurai, M. and Murayama, Y. (2019). Information technologies and disaster management – benefits and issues. *Progress in Disaster Science*, **2**, 100012. DOI: 10.1016/j.pdisas.2019.100012.

Samuni, L., Preis, A., Deschner, T., Crockford, C. and Wittig, R.M. (2018). Reward of labor coordination and hunting success in wild chimpanzees. *Communications Biology*, **1**, 138. DOI: 10.1038/s42003-018-0142-3.

Samuni, L., Wegdell, F. and Surbeck, M. (2020). Behavioural diversity of bonobo prey preference as a potential cultural trait. *eLife*, **9**, e59191. DOI: 10.7554/eLife.59191.

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Sanchez, C.R. and Hidalgo-Hermoso, E. (2022). *Mycobacterium tuberculosis* sensu stricto in African apes, what is its true health impact? *Pathogens*, **11**(5), 484. DOI: 10.3390/pathogens11050484.

Sanchez, K.L., Greenwood, A.D., Nielsen, A., *et al.* (2022). *Plasmodium pitheci* malaria in Bornean orang-utans at a rehabilitation centre in West Kalimantan, Indonesia. *Malaria Journal*, **21**(1), 280. DOI: 10.1186/s12936-022-04290-8.

Sánchez-Vizcaíno, F., Muniesa, A., Singleton, D.A., *et al.* (2018). Use of vaccines and factors associated with their uptake variability in dogs, cats and rabbits attending a large sentinel network of veterinary practices across Great Britain. *Epidemiology & Infection*, **146**(7), 895–903. DOI: 10.1017/S0950268818000754.

Sandbrook, C.G. (2010). Putting leakage in its place: the significance of retained tourism revenue in the local context in rural Uganda. *Journal of International Development*, **22**(1), 124–36. DOI: 10.1002/jid.1507.

Sandbrook, C. and Semple, S. (2006). The rules and the reality of mountain gorilla *Gorilla beringei beringei* tracking: how close do tourists get? *Oryx*, **40**(4), 428–33. DOI: 10.1017/S0030605306001323.

Sandosham, A.A. (1951). On two helminths from the orang utan, *Leipertrema rewelli* n.g., n.sp. and *Dirofilaria immitis* (Leidy, 1856). *Journal of Helminthology*, **25**(1–2), 19–26. DOI: 10.1017/S0022149X00018927.

Santiago-Ávila, F.J. and Lynn, W.S. (2020). Bridging compassion and justice in conservation ethics. *Biological Conservation*, **248**, 108648. DOI: 10.1016/j.biocon.2020.108648.

Santos, W.J., Guiraldi, L.M. and Lucheis, S.B. (2020). Should we be concerned about COVID-19 with nonhuman primates? *American Journal of Primatology*, **82**(8), e23158. DOI: 10.1002/ajp.23158.

Sapolsky, R., Romero, L.M. and Munck, A.U. (2000). How do glucocorticoids influence stress responses? Integrating permissive, suppressive, stimulatory, and preparative actions. *Endocrine Reviews*, **21**(1), 55–89. DOI: 10.1210/edrv.21.1.0389.

Sapolsky, R., Uno, H., Rebert, C. and Finch, C. (1990). Hippocampal damage associated with prolonged glucocorticoid exposure in primates. *The Journal of Neuroscience*, **10**(9), 2897–902. DOI: 10.1523/jneurosci.10-09-02897.1990.

Sarma, K., Krishna, M. and Kumar, A. (2015). Fragmented populations of the vulnerable eastern hoolock gibbon *Hoolock leuconedys* in the Lower Dibang Valley district, Arunachal Pradesh, India. *Oryx*, **49**(1), 133–9. DOI: 10.1017/S0030605312001299.

Sarmiento, E.E. (1985). *Functional differences in the skeleton of wild and captive orangutans and their adaptive significance.* PhD thesis. New York, NY: New York University.

Satchell, G.H. and Harrison, R.A. (1953). II. Experimental observations on the possibility of transmission of yaws by wound-feeding Diptera, in Western Samoa. *Transactions of the Royal Society of Tropical Medicine and Hygiene*, **47**(2), 148–53. DOI: 10.1016/0035-9203(53)90068-6.

Saudale, V. (2015). Ministry: Indonesia has only four decent zoos. *Jakarta Globe*, February 8, 2015. Available at: https://www.todayonline.com/world/asia/indonesia-has-only-4-decent-zoos-ministry.

Save the Chimps (n.d.). *Philosophy of Care*. Internal unpublished document. Fort Pierce, FL: Save the Chimps.

Sayektiningsih, T., Sari., U.K., Yassir, I. and Ma'ruf, A. (2020). Students and orangutan conservation: high school students' perceptions of orangutan sanctuary establishment in Balikpapan Bay, East Kalimantan, Indonesia. *Buletin Eboni*, **2**(1), 35–46. DOI: 10.20886/buleboni.5570.

Schaffner, C.M., Rebecchini, L., Ramos-Fernandez, G., Vick, L.G. and Aureli, F. (2012). Spider monkeys (*Ateles geoffroyi yucatenensis*) cope with the negative consequences of hurricanes through changes in diet, activity budget, and fission–fusion dynamics. *International Journal of Primatology*, **33**(4), 922–36. DOI: 10.1007/s10764-012-9621-4.

Schaller, G.B. (1963). *The Mountain Gorilla: Ecology and Behavior.* Chicago, IL: University of Chicago Press.

Schapiro, S.J., Bloomsmith, M.A. and Laule, G.E. (2003). Positive reinforcement training as a technique to alter nonhuman primate behavior: quantitative assessments of effectiveness. *Journal of Applied Animal Welfare Science*, **6**(3), 175–87. DOI: 10.1207/S15327604JAWS0603_03.

Schaumburg, F., Mugisha, L., Peck, B., *et al.* (2012). Drug-resistant human *Staphylococcus aureus* in sanctuary apes pose a threat to endangered wild ape populations. *American Journal of Primatology*, **74**(12), 1071–5. DOI: 10.1002/ajp.22067.

Scheffer, M., Bolhuis, J.E., Borsboom, D., *et al.* (2018). Quantifying resilience of humans and other animals. *Proceedings of the National Academy of Sciences*, **115**(47), 11883–90. DOI: 10.1073/pnas.1810630115.

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Scherl, L.M., Wilson, A., Wild, R., *et al.* (2004). *Can Protected Areas Contribute to Poverty Reduction? Opportunities and Limitations.* Gland, Switzerland, and Cambridge, UK: International Union for Conservation of Nature (IUCN). Available at: https://portals.iucn.org/library/sites/library/files/documents/2004-047.pdf.

Schoenle, L.A., Downs, C.J. and Martin, L.B. (2018). An introduction to ecoimmunology. In *Advances in Comparative Immunology*, ed. E. L. Cooper. Cham, Switzerland: Springer International Publishing, pp. 901–32. DOI: 10.1007/978-3-319-76768-0_26.

Scholfield, K.A. (2013). *Transnational (dis)connections: mountain gorilla conservation in Rwanda and the DRC.* PhD thesis. Manchester, UK: University of Manchester.

Schovancová, K., Pomajbíková, K., Procházka, P., *et al.* (2013). Preliminary insights into the impact of dietary starch on the ciliate, *Neobalantidium coli*, in captive chimpanzees. *PLoS ONE*, **8**(11), e81374. DOI: 10.1371/journal.pone.0081374.

Schubert, G., Achi, V., Ahuka, S., *et al.* (2021). The African network for improved diagnostics, epidemiology and management of common infectious agents. *BMC Infectious Diseases*, **21**(1), 539. DOI: 10.1186/s12879-021-06238-w.

Schuenemann, V.J., Avanzi, C., Krause-Kyora, B., *et al.* (2018). Ancient genomes reveal a high diversity of *Mycobacterium leprae* in medieval Europe. *PLoS Pathogens*, **14**(5), e1006997. DOI: 10.1371/journal.ppat.1006997.

Schulman, F.Y., Farb, A., Virmani, R. and Montali, R.J. (1995). Fibrosing cardiomyopathy in captive western lowland gorillas (*Gorilla gorilla gorilla*) in the United States: a retrospective study. *Journal of Zoo and Wildlife Medicine*, **26**(1), 43–51.

Scorpion (2019). Document of strategy and action plan for Indonesian orangutan conservation 2019–2029 is launched. *Scorpionmonitor News*, 13 August 2019. Available at: http://scorpionmonitor.org/news/document-of-strategy-and-action-plan-for-indonesian-orangutan-conservation-2019-2029-is-launched-august-12-2019-444.html.

SCS (2017). *NSW Rural Fire Service Fire Trail Design, Construction and Maintenance Manual.* Parramatta, Australia: Soil Conservation Service (SCS). Available at: https://www.rfs.nsw.gov.au/__data/assets/pdf_file/0009/97569/Fire-Trail-Design-Construction-and-Maintenance-Manual-FINAL_reducedsize.pdf.

Scully, E.J., Basnet, S., Wrangham, R.W., *et al.* (2018). Lethal respiratory disease associated with human rhinovirus C in wild chimpanzees, Uganda, 2013. *Emerging Infectious Diseases*, **24**(2), 267–74. DOI: 10.3201/eid2402.170778.

Second Chance Chimpanzee Refuge Liberia (2020). Second Chance Chimpanzee Refuge Liberia/Save the Abandoned Chimps. *Facebook Post*, October 14, 2020. Available at: https://www.facebook.com/abandonedchimps/posts/2806313472914574.

Seifert, S.N., Fischer, R.J., Kuisma, E., *et al.* (2022). Zaire Ebola virus surveillance near the Bikoro region of the Democratic Republic of the Congo during the 2018 outbreak reveals presence of seropositive bats. *PLoS Neglected Tropical Diseases*, **16**(6), e0010504. DOI: 10.1371/journal.pntd.0010504.

Seiler, B.M., Dick Jr, E.J., Guardado-Mendoza, R., *et al.* (2009). Spontaneous heart disease in the adult chimpanzee (*Pan troglodytes*). *Journal of Medical Primatology*, **38**(1), 51–8. DOI: 10.1111/j.1600-0684.2008.00307.x.

Seiler, N., Boesch, C., Mundry, R., Stephens, C. and Robbins, M.M. (2017). Space partitioning in wild, non-territorial mountain gorillas: the impact of food and neighbours. *Royal Society Open Science*, **4**(11), 170720. DOI: 10.1098/rsos.170720.

Seiler, N., Boesch, C., Stephens, C., *et al.* (2018). Social and ecological correlates of space use patterns in Bwindi mountain gorillas. *American Journal of Primatology*, **80**(4), e22754. DOI: 10.1002/ajp.22754.

Seiler, N. and Robbins, M.M. (2016). Factors influencing ranging on community land and crop raiding by mountain gorillas. *Animal Conservation*, **19**(2), 176–88. DOI: 10.1111/acv.12232.

Seiler, N. and Robbins, M.M. (2020). Ecological correlates of space use patterns in wild western lowland gorillas. *American Journal of Primatology*, **82**(9), e23168. DOI: 10.1002/ajp.23168.

Seimon, T.A., Olson, S.H., Lee, K.J., *et al.* (2015). Correction: Adenovirus and herpesvirus diversity in free-ranging great apes in the Sangha region of the Republic of Congo. *PLoS ONE*, **10**(11), e0142766. DOI: 10.1371/journal.pone.0142766.

Sekerka, L.E. and Bagozzi, R.P. (2007). Moral courage in the workplace: moving to and from the desire and decision to act. *Business Ethics: A European Review*, **16**(2), 132–49. DOI: 10.1111/j.1467-8608.2007.00484.x.

Seneviratne, S.I., Nicholls, N., Easterling, D., *et al.* (2012). Changes in climate extremes and their impacts on the natural physical environment. In *Managing the Risks of Extreme Events and Disasters to Advance Climate*

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Change Adaptation A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change (IPCC), ed. IPCC. Cambridge, UK, and New York, NY: Cambridge University Press, pp. 109–230.

Serckx, A., Huynen, M.-C., Bastin, J.-F., *et al.* (2014). Nest grouping patterns of bonobos (*Pan paniscus*) in relation to fruit availability in a forest–savannah mosaic. *PLoS ONE*, **9**(4), e93742. DOI: 10.1371/journal.pone.0093742.

Sergio, F., Blas, J. and Hiraldo, F. (2018). Animal responses to natural disturbance and climate extremes: a review. *Global and Planetary Change*, **161**, 28–40. DOI: 10.1016/j.gloplacha.2017.10.009.

Shaffer, C.A., Yukuma, C., Marawanaru, E. and Suse, P. (2018). Assessing the sustainability of Waiwai subsistence hunting in Guyana by comparison of static indices and spatially explicit, biodemographic models. *Animal Conservation*, **21**(2), 148–58. DOI: 10.1111/acv.12366.

Sharp, P.M. and Hahn, B.H. (2011). Origins of HIV and the AIDS pandemic. *Cold Spring Harbor Perspectives in Medicine*, **1**(1), a006841. DOI: 10.1101/cshperspect.a006841.

Shave, R., Oxborough, D., Somauroo, J., *et al.* (2014). Echocardiographic assessment of cardiac structure and function in great apes: a practical guide. *International Zoo Yearbook*, **48**(1), 218–33. DOI: 10.1111/izy.12026.

Shchelkunov, S.N., Totmenin, A.V., Babkin, I.V., *et al.* (2001). Human monkeypox and smallpox viruses: genomic comparison. *FEBS Letters*, **509**(1), 66–70. DOI: 10.1016/S0014-5793(01)03144-1.

Sherman, J., Ancrenaz, M. and Meijaard, E. (2020). Shifting apes: conservation and welfare outcomes of Bornean orangutan rescue and release in Kalimantan, Indonesia. *Journal for Nature Conservation*, **55**, 125807. DOI: 10.1016/j.jnc.2020.125807.

Sherman, J., Ancrenaz, M., Voigt, M., *et al.* (2020). Envisioning a future for Bornean orangutans: conservation impacts of action plan implementation and recommendations for improved population outcomes. *Biodiversitas*, **21**(2), 456–77.

Sherman, J., Brent, L. and Farmer, K. (2016). Poster: A picture is worth a thousand words: an analysis of animal images posted on the internet by African ape sanctuaries. Presented at: *International Primatological Society, 26th Congress, August 23, 2016, Chicago, IL*. International Primatological Society.

Sherman, J. and Greer, D. (2018). The status of captive apes. I. Beyond capacity: sanctuaries and the status of captive apes in shrinking natural habitats. In *State of the Apes: Infrastructure Development and Ape Conservation*, ed. Arcus Foundation. Cambridge, UK: Cambridge University Press, pp. 227–55. Available at: https://www.stateoftheapes.com/themes/ch-8-the-status-of-captive-apes/.

Sherman, J., Unwin, S., Travis, D.A., *et al.* (2021). Disease risk and conservation implications of orangutan translocations. *Frontiers in Veterinary Science*, **8**, 749547. DOI: 10.3389/fvets.2021.749547.

Sherwen, S.L., Hemsworth, L.M., Beausoleil, N.J., Embury, A. and Mellor, D.J. (2018). An animal welfare risk assessment process for zoos. *Animals*, **8**(8), 130. DOI: 10.3390/ani8080130.

Shin, N.S., Kwon, S.W., Han, D.H., *et al.* (1995). *Mycobacterium tuberculosis* infection in an orangutan (*Pongo pygmaeus*). *Journal of Veterinary Medical Science*, **57**(5), 951–3. DOI: 10.1292/jvms.57.951.

Shue, H. (1996). *Basic Rights: Subsistence, Affluence, and U.S. Foreign Policy.* Princeton, NJ: Princeton University Press.

Shutt, K.A. (2014). *Wildlife tourism and conservation: an interdisciplinary evaluation of gorilla ecotourism in Dzanga-Sangha, Central African Republic.* PhD thesis. Durham, UK: Durham University.

Shutt, K., Heistermann, M., Kasim, A., *et al.* (2014). Effects of habituation, research and ecotourism on faecal glucocorticoid metabolites in wild western lowland gorillas: implications for conservation management. *Biological Conservation*, **172**, 72–9. DOI: 10.1016/j.biocon.2014.02.014.

Sierra Maestra (2020). *Zoológico de Santiago de Cuba: un atractivo citadino.* Havana, Cuba: Sierra Maestra. Available at: http://www.sierramaestra.cu/index.php/especiales/32854-zoologico-de-santiago-de-cuba-un-atractivo-citadino.

Silva, C. (2018). Animal welfare law of Costa Rica. *The Costa Rica News*, September 18, 2018. Available at: https://thecostaricanews.com/animal-welfare-law-of-costa-rica/#:~:text=The%20law%20establishes%20punishments%20of,with%20them%20or%20practices%20vivisection.

Sim, S.H., Ong, C.E.L., Gan, Y.H., *et al.* (2018). Melioidosis in Singapore: clinical, veterinary, and environmental perspectives. *Tropical Medicine and Infectious Disease*, **3**(1), 31. DOI: 10.3390/tropicalmed3010031.

Sinclair, M. and Phillips, C.J.C. (2018a). International Animal Protection Society leadership: the right people for the right issues. *Animals*, **8**(6), 89. DOI: 10.3390/ani8060089.

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Sinclair, M. and Phillips, C.J.C. (2018b). Key tenets of operational success in international animal welfare initiatives. *Animals*, **8**(6), 92. DOI: 10.3390/ani8060092.

Singer, P. (2011). *Practical Ethics.* Cambridge, UK: Cambridge University Press.

Singer, T. and Klimecki, O.M. (2014). Empathy and compassion. *Current Biology*, **24**(18), R875–8. DOI: 10.1016/j.cub.2014.06.054.

Singleton, I., Knott, C.D., Morrogh-Bernard, H.C., Wich, S.A. and van Schaik, C.P. (2009). Ranging behavior of orangutan females and social organization. In *Orangutans: Geographic Variation in Behavioral Ecology and Conservation*, ed. S. A. Wich, S. Utami-Atmoko, T. Mitra Setia and C. P. van Schaik. Oxford, UK: Oxford University Press, pp. 205–13.

Singleton, I., Wich, S.A., Nowak, M., Usher, G. and Utami-Atmoko, S.S. (2017). Pongo abelii *(errata version published in 2018). The IUCN Red List of Threatened Species 2017: e.T121097935A123797627.* Gland, Switzerland: International Union for Conservation of Nature (IUCN). DOI: 10.2305/IUCN.UK.2017-3.RLTS.T121097935A115575085.en.

Siregar, J.E., Faust, C.L., Murdiyarso, L.S., *et al.* (2015). Non-invasive surveillance for *Plasmodium* in reservoir macaque species. *Malaria Journal*, **14**(1), 404. DOI: 10.1186/s12936-015-0857-2.

Skinner, M.F. (1986). Enamel hypoplasia in sympatric chimpanzee and gorilla. *Human Evolution*, **1**(4), 289–312. DOI: 10.1007/BF02436704.

Sklenovská, N. and Van Ranst, M. (2018). Emergence of monkeypox as the most important orthopoxvirus infection in humans. *Frontiers in Public Health*, **6**, 241. DOI: 10.3389/fpubh.2018.00241.

Slater, O.M., Terio, K.A., Zhang, Y., *et al.* (2014). Human metapneumovirus infection in chimpanzees, United States. *Emerging Infectious Diseases*, **20**(12), 2115–18. DOI: 10.3201/eid2012.140408.

Sloan, S., Alamgir, M., Campbell, M.J., Setyawati, T. and Laurance, W.F. (2019). Development corridors and remnant-forest conservation in Sumatra, Indonesia. *Tropical Conservation Science*, **12**, 1940082919889509. DOI: 10.1177/1940082919889509.

Sloan, S., Supriatna, J., Campbell, M.J., Alamgir, M. and Laurance, W.F. (2018). Newly discovered orangutan species requires urgent habitat protection. *Current Biology*, **28**(11), R650–1. DOI: 10.1016/j.cub.2018.04.082.

Smiley Evans, T., Barry, P.A., Gilardi, K.V., *et al.* (2015). Optimization of a novel non-invasive oral sampling technique for zoonotic pathogen surveillance in nonhuman primates. *PLoS Neglected Tropical Diseases*, **9**(6), e0003813. DOI: 10.1371/journal.pntd.0003813.

Smiley Evans, T., Gilardi, K.V.K., Barry, P.A., *et al.* (2016). Detection of viruses using discarded plants from wild mountain gorillas and golden monkeys. *American Journal of Primatology*, **78**(11), 1222–34. DOI: 10.1002/ajp.22576.

Smiley Evans, T., Lowenstine, L.J., Gilardi, K.V., *et al.* (2017). Mountain gorilla lymphocryptovirus has Epstein-Barr virus-like epidemiology and pathology in infants. *Scientific Reports*, **7**, 5352. DOI: 10.1038/s41598-017-04877-1.

Smith, P.C., Yuill, T.M., Buchanan, R.D., Stanton, J.S. and Chaicumpa, V. (1969). The gibbon (*Hylobates lar*); a new primate host for *Herpesvirus hominia*. I. A natural epizootic in a laboratory colony. *Journal of Infectious Diseases*, **120**(3), 292–7. DOI: 10.1093/infdis/120.3.292.

Smithsonian Institute (2022). *What Does it Mean to be Human?* Washington DC: Smithsonian Institution. Available at: http://humanorigins.si.edu/evidence/genetics.

Smits, W.T.M., Heriyanto and Ramono, W.S. (1995). A new method for rehabilitation of orangutans in Indonesia. In *The Neglected Ape*, ed. R. D. Nadler, B. F. M. Galdikas, L. K. Sheeran and N. Rosen. Boston, MA: Springer, pp. 69–77. DOI: 10.1007/978-1-4899-1091-2_8.

SOC (n.d.). *Meet Orangutan.* East Kalimantan, Indonesia: Singtan Orangutan Center (SOC). Available at: https://www.soc.or.id/sintang-orangutan-center/meet-orangutan/. Accessed: October, 2020.

SOCP (n.d.-a). *Creating New Wild Populations.* Medan, Indonesia: Sumatran Orangutan Conservation Program (SOCP). Available at: https://www.sumatranorangutan.org/our-work/creating-new-wild-populations/. Accessed: August, 2021.

SOCP (n.d.-b). *Jantho Orangutan Reintroduction Centre.* Medan, Indonesia: Sumatran Orangutan Conservation Program (SOCP). Available at: https://www.sumatranorangutan.org/our-work/creating-new-wild-populations/reintroduction/jantho/. Accessed: September, 2022.

SOCP (n.d.-c). *Our Work.* Medan, Indonesia: Sumatran Orangutan Conservation Program (SOCP). Available at: https://www.sumatranorangutan.org/our-work/creating-new-wild-populations/. Accessed: September, 2022.

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SOCP (n.d.-d). *Rehabilitation*. Medan, Indonesia: Sumatran Orangutan Conservation Program (SOCP). Available at: https://www.sumatranorangutan.org/our-work/creating-new-wild-populations/rehabilitation/. Accessed: September, 2022.

Solleveld, H.A., van Zwieten, M.J., Heidt, P.J. and van Eerd, P.M. (1984). Clinicopathologic study of six cases of meningitis and meningoencephalitis in chimpanzees (*Pan troglodytes*). *Laboratory Animal Science*, **34**(1), 86–90.

Sollund, R. (2022). Wildlife trade and law enforcement: a proposal for a remodeling of CITES incorporating species justice, ecojustice, and environmental justice. *International Journal of Offender Therapy and Comparative Criminology*, **66**(9), 1017–35. DOI: 10.1177/0306624x221099492.

Somerville, K. (2020). Focus: Wildlife & pandemics: COVID-19, bushmeat and poaching in Africa. *Global Geneva*, September 14, 2020. Available at: https://www.global-geneva.com/focus-wildlife-pandemics-covid-19-bushmeat-and-poaching-in-africa/.

Soorae, P.S., Al Hemeri, A., Al Shamsi, A. and Al Suwaidi, K. (2008). A survey of the trade in wildlife as pets in the United Arab Emirates. *TRAFFIC Bulletin*, **22**(1), 41–6.

Southern, L.M., Deschner, T. and Pika, S. (2021). Lethal coalitionary attacks of chimpanzees (*Pan troglodytes troglodytes*) on gorillas (*Gorilla gorilla gorilla*) in the wild. *Scientific Reports*, **11**, 14673. DOI: 10.1038/s41598-021-93829-x.

Species360 (n.d.). *ZIMS by Species360*. Minneapolis, MN: Species360. Available at: https://zims.species360.org. Accessed: August, 2020.

Spehar, S.N., Sheil, D., Harrison, T., *et al*. (2018). Orangutans venture out of the rainforest and into the Anthropocene. *Science Advances*, **4**(6), 1–13. DOI: 10.1126/sciadv.1701422.

Spelman, L.H., Gilardi, K.V.K., Lukasik-Braum, M., *et al*. (2013). Respiratory disease in mountain gorillas (*Gorilla beringei beringei*) in Rwanda, 1990–2010: outbreaks, clinical course, and medical management. *Journal of Zoo and Wildlife Medicine*, **44**(4), 1027–35. DOI: 10.1638/2013-0014R.1.

Spenceley, A., Habyalimana, S., Tusabe, R. and Mariza, D. (2010). Benefits to the poor from gorilla tourism in Rwanda. *Development Southern Africa*, **27**(5), 647–62. DOI: 10.1080/0376835X.2010.522828.

Spencer, J., Amony, I. and Dube, C. (2020). The impacts of mountain gorilla tourism in Uganda: can participating stakeholders benefit? In *3rd International Conference on Tourism Research, Universidad Europea de Valencia, Spain, 27–28 March 2020*, ed. J. Martí-Parreño, R. Gómez-Calvet and J. Muñoz de Prat. Sonning Common, UK: Academic Conferences and Publishing International Ltd, pp. 355–62.

Spessa, A. and Field, R. (2015). Indonesia at risk from huge fires because of El Niño. *The Conversation*, June 16, 2015. Available at: https://theconversation.com/indonesia-at-risk-from-huge-fires-because-of-el-nino-43072.

Spessa, A.C., Field, R.D., Pappenberger, F., *et al*. (2015). Seasonal forecasting of fire over Kalimantan, Indonesia. *Natural Hazards Earth Systems Sciences*, **15**(3), 429–42. DOI: 10.5194/nhess-15-429-2015.

Spillmann, B., van Noordwijk, M.A., Willems, E.P., *et al*. (2015). Validation of an acoustic location system to monitor Bornean orangutan (*Pongo pygmaeus wurmbii*) long calls. *American Journal of Primatology*, **77**(7), 767–76. DOI: 10.1002/ajp.22398.

Spillmann, B., Willems, E.P., van Noordwijk, M.A., Setia, T.M. and van Schaik, C.P. (2017). Confrontational assessment in the roving male promiscuity mating system of the Bornean orangutan. *Behavioral Ecology and Sociobiology*, **71**(1), 20. DOI: 10.1007/s00265-016-2252-6.

Špinka, M. and Wemelsfelder, F. (2018). Environmental challenge and animal agency. In *Animal Welfare*, ed. M. C. Appleby, I. A. S. Olsson and F. Galindo. Wallingford, UK: CABI International, pp. 39–55. DOI: 10.1079/9781786390202.0039.

SPOTT (n.d.). *Timber and Pulp: ESG Policy Transparency*. SPOTT. Available at: https://www.spott.org/timber-pulp/. Accessed: December, 2022.

Sprague, L.D. and Neubauer, H. (2004). Melioidosis in animals: a review on epizootiology, diagnosis and clinical presentation. *Journal of Veterinary Medicine, Series B*, **51**(7), 305–20. DOI: 10.1111/j.1439-0450.2004.00797.x.

Spruijt, B.M., van den Bos, R. and Pijlman, F.T.A. (2001). A concept of welfare based on reward evaluating mechanisms in the brain: anticipatory behaviour as an indicator for the state of reward systems. *Applied Animal Behaviour Science*, **72**(2), 145–71. DOI: 10.1016/S0168-1591(00)00204-5.

Srivathsan, A., Lee, L., Katoh, K., *et al*. (2021). ONTbarcoder and MinION barcodes aid biodiversity discovery and identification by everyone, for everyone. *BMC Biology*, **19**(1), 217. DOI: 10.1186/s12915-021-01141-x.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 15 Nov 2026 at 20:46:16, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781009071727.013

Staupe-Delgado, R. (2019). Analysing changes in disaster terminology over the last decade. *International Journal of Disaster Risk Reduction*, **40**, 101161. DOI: 10.1016/j.ijdrr.2019.101161.

Steinmetz, H.W. and Zimmermann, N.E. (2012). Computed tomography for the diagnosis of sinusitis and air sacculitis in orangutans. In *Fowler's Zoo and Wild Animal Medicine, Current Therapy, Volume 7*, ed. R. E. Miller and M. Fowler. St Louis, MO: Elsevier Saunders, pp. 422–30. DOI: 10.1016/B978-1-4377-1986-4.00055-X.

Steinmetz, R., Srirattanaporn, S., Mor-Tip, J. and Seuaturien, N. (2014). Can community outreach alleviate poaching pressure and recover wildlife in south-east Asian protected areas? *Journal of Applied Ecology*, **51**(6), 1469–78. DOI: 10.1111/1365-2664.12239.

Stephen, C. and Karesh, W.B. (2014). Is One Health delivering results? Introduction. *Revue Scientifique et Technique de l'Office International des Épizooties*, **33**(2), 375–92. DOI: 10.20506/rst.33.2.2301.

Stephens, N., Vogelnest, L., Lowbridge, C., *et al.* (2013). Transmission of *Mycobacterium tuberculosis* from an Asian elephant (*Elephas maximus*) to a chimpanzee (*Pan troglodytes*) and humans in an Australian zoo. *Epidemiology & Infection*, **141**(7), 1488–97. DOI: 10.1017/s095026881300068x.

Stevens, J. (2020). *EAZA Best Practice Guidelines – Bonobo (*Pan panicus*)*. Amsterdam, the Netherlands: European Association of Zoos and Aquaria (EAZA) Great Ape Taxon Advisory Group (TAG). Available at: https://www.eaza.net/assets/Uploads/CCC/BPG-2020/Bonobo-BPG-final-version-2020.pdf.

Stevens, J.M., Alonso, A.S., Aerts, T. and Vervaecke, H. (2008). The behaviour of a group of chimpanzees: influence of spatial crowding and visitor numbers. Presented at: *Proceedings of the Tenth Annual Symposium on Zoo Research, Hull, UK, 15–16 July 2008*. London, UK: British and Irish Association of Zoos and Aquariums (BIAZA).

Stewart, K. (1988). Suckling and lactational anoestrus in wild gorillas (*Gorilla gorilla*). *Journal of Reproduction and Fertility*, **83**(2), 627–34.

Stewart, M.C. and Wilson, G.B. (2016). The dynamic role of social media during Hurricane #Sandy: An introduction of the STREMII model to weather the storm of the crisis lifecycle. *Computers in Human Behavior*, **54**, 639–46. DOI: 10.1016/j.chb.2015.07.009.

Stibbe, A. (2001). Language, power and the social construction of animals. *Society & Animals*, **9**(2), 145–61. DOI: 10.1163/156853001753639251.

Stoinski, T.S., Perdue, B.M., Breuer, T. and Hoff, M.P. (2013). Variability in the developmental life history of the genus *Gorilla*. *American Journal of Physical Anthropology*, **152**(2), 165–72.

Stokes, E.J. and Byrne, R.W. (2006). Effect of snare injuries on the fig-feeding behavior of chimpanzees of the Budongo Forest, Uganda. In *Primates of Western Uganda*, ed. N. E. Newton-Fisher, H. Notman, J. D. Paterson and V. Reynolds. New York, NY: Springer, pp. 281–97. DOI: 10.1007/978-0-387-33505-6_16.

Stop Animal Selfies (n.d.). *Home.* Costa Rica: Stop Animal Selfies. Available at: https://stopanimalselfies.org/en/home/. Accessed: March, 2021.

Strindberg, S., Maisels, F., Williamson, E.A., *et al.* (2018). Guns, germs, and trees determine density and distribution of gorillas and chimpanzees in western Equatorial Africa. *Science Advances*, **4**(4), eaar2964. DOI: 10.1126/sciadv.aar2964.

Strong, V.J., Grindlay, D., Redrobe, S., Cobb, M. and White, K. (2016). A systematic review of the literature relating to captive great ape morbidity and mortality. *Journal of Zoo and Wildlife Medicine*, **47**(3), 697–710. DOI: 10.1638/2015-0240.1.

Strong, V.J., Martin, M., Redrobe, S., White, K. and Baiker, K. (2018). A retrospective review of great ape cardiovascular disease epidemiology and pathology. *International Zoo Yearbook*, **52**(1), 113–25. DOI: 10.1111/izy.12193.

Strong, V., Moittié, S., Sheppard, M.N., *et al.* (2020). Idiopathic myocardial fibrosis in captive chimpanzees (*Pan troglodytes*). *Veterinary Pathology*, **57**(1), 183–91. DOI: 10.1177/0300985819879442.

Strum, S.C. (2005). Measuring success in primate translocation: a baboon case study. *American Journal of Primatology*, **65**(2), 117–40. DOI: 10.1002/ajp.20103.

Stuart, P., Yalcindag, E., Ali, I.K.M., *et al.* (2020). *Entamoeba histolytica* infections in wild and semi-wild orangutans in Sumatra and Kalimantan. *American Journal of Primatology*, **82**(5), e23124. DOI: 10.1002/ajp.23124.

Subudhi, S., Rapin, N. and Misra, V. (2019). Immune system modulation and viral persistence in bats: understanding viral spillover. *Viruses*, **11**(2), 192. DOI: 10.3390/v11020192.

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Sumarga, E. (2017). Spatial indicators for human activities may explain the 2015 fire hotspot distribution in central Kalimantan Indonesia. *Tropical Conservation Science*, **10**. DOI: 10.1177/1940082917706168.

Susman, R.L. (1984). The locomotor behavior of *Pan paniscus* in the Lomako Forest. In *The Pygmy Chimpanzee: Evolutionary Biology and Behavior*, ed. R. L. Susman. Boston, MA: Springer, pp. 369–93. DOI: 10.1007/978-1-4757-0082-4_15.

Suzuki, K., Tanigawa, K., Kawashima, A., Miyamura, T. and Ishii, N. (2011). Chimpanzees used for medical research shed light on the pathoetiology of leprosy. *Future Microbiology*, **6**(10), 1151–7. DOI: 10.2217/fmb.11.97.

Swaisgood, R.R. (2010). The conservation–welfare nexus in reintroduction programmes: a role for sensory ecology. *Animal Welfare*, **19**(2), 125–37. DOI: 10.1017/S096272860000138X.

Szentiks, C.A., Köndgen, S., Silinski, S., Speck, S. and Leendertz, F.H. (2009). Lethal pneumonia in a captive juvenile chimpanzee (*Pan troglodytes*) due to human-transmitted human respiratory syncytial virus (HRSV) and infection with *Streptococcus pneumoniae*. *Journal of Medical Primatology*, **38**(4), 236–40. DOI: 10.1111/j.1600-0684.2009.00346.x.

Tabor, P.D. (2011). Vicarious traumatization: concept analysis. *Journal of Forensic Nursing*, **7**(4), 203–8. DOI: 10.1111/j.1939-3938.2011.01115.x.

Tacugama Chimpanzee Sanctuary (n.d.). *About Us.* Freetown, Sierra Leone: Tacaguma Chimpanzee Sanctuary. Available at: https://www.tacugama.com/about-us/. Accessed: October, 2020.

Tangtrongsup, S., Sripakdee, D., Malaivijitnond, S., Angkuratipakorn, R. and Lappin, M.R. (2019). Intestinal parasites and the occurrence of zoonotic *Giardia duodenalis* genotype in captive gibbons at Krabokkoo Wildlife Breeding Center, Thailand. *Frontiers in Veterinary Science*, **6**, 110. DOI: 10.3389/fvets.2019.00110.

Tapanes, E., Detwiler, K.M. and Cords, M. (2016). Bat predation by cercopithecus monkeys: implications for zoonotic disease transmission. *EcoHealth*, **13**(2), 405–9. DOI: 10.1007/s10393-016-1121-0.

Tapper, R. (2006). *Wildlife Watching and Tourism: A Study on the Benefits and Risks of a Fast Growing Tourism Activity and its Impacts on Species*. Bonn, Germany: United Nations Environment Programme (UNEP)/Convention on Migratory Species (CMS) Secretariat.

TAWIRI (2018). *Tanzania Chimpanzee Conservation Action Plan 2018–2023*. Arusha, Tanzania: Tanzania Wildlife Research Institute (TAWIRI). Available at: https://www.researchgate.net/publication/332865978_Tanzania-Chimpanzee-Conservation-Action-Plan-2018.

Tayleur, C., Balmford, A., Buchanan, G.M., *et al.* (2017). Global coverage of agricultural sustainability standards, and their role in conserving biodiversity. *Conservation Letters*, **10**(5), 610–18. DOI: 10.1111/conl.12314.

Tchakoudeu Kehou, S., Daïnou, K. and Lagoute, P. (2021). The reasons great ape populations are still abundant in logged concessions: environmental drivers and the influence of management plans. *Forest Ecology and Management*, **483**, 118911. DOI: 10.1016/j.foreco.2020.118911.

Teare, J.A. and Loomis, M.R. (1982). Epizootic of balantidiasis in lowland gorillas. *Journal of the American Veterinary Medical Association*, **181**(11), 1345–7.

Teixeira, C.P., de Azevedo, C.S., Mendl, M., Cipreste, C.F. and Young, R.J. (2007). Revisiting translocation and reintroduction programmes: the importance of considering stress. *Animal Behaviour*, **73**(1), 1–13. DOI: 10.1016/j.anbehav.2006.06.002.

Teo, H.C., Lechner, A.M., Sagala, S. and Campos-Arceiz, A. (2020). Environmental impacts of planned capitals and lessons for Indonesia's new capital. *Land*, **9**(11), 438. DOI: 10.3390/land9110438.

Teo, S.Z., Tuen, A.A., Madinah, A., Aban, S. and Chong, Y.L. (2019). Occurrence of gastrointestinal nematodes in captive nonhuman primates at Matang Wildlife Centre, Sarawak. *Tropical biomedicine*, **36**(3), 594–603.

Testamenti, V.A., Surya, M., Saepuloh, U., *et al.* (2020). Characterization of *Burkholderia pseudomallei* from spontaneous melioidosis in a Bornean orangutan. *Veterinary World*, **13**, 2459–68. DOI: 10.14202/vetworld.2020.2459-2468.

Thangavelu, K., Jamir, I., Ellappan, K., *et al.* (2021). Comparison of MGIT 960 with Lowenstein Jensen media for recovery of mycobacteria from extrapulmonary specimens in southern India. *Journal of Clinical and Diagnostic Research*, **15**(3), DC01–4. DOI: 10.7860/jcdr/2021/47238.14603.

The Chimpanzee Sequencing and Analysis Consortium (2005). Initial sequence of the chimpanzee genome and comparison with the human genome. *Nature*, **437**(7055), 69–87. DOI: 10.1038/nature04072.

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The Ebola Gbalo Research Group (2019). Responding to the Ebola virus disease outbreak in DR Congo: when will we learn from Sierra Leone? *The Lancet*, **393**(10191), 2647–50. DOI: 10.1016/S0140-6736(19)31211-5.

The Republic of Rwanda (2018). *Ebola Virus Disease (EVD) Contingency Plan.* The Republic of Rwanda. Available at: https://www.preventionweb.net/files/63524_rwandaebolavirusdiseaseevdcontingen.pdf.

Thinh, V.N., Mootnick, A.R., Thanh, V.N., Nadler, T. and Roos, C. (2010). A new species of crested gibbon, from the central Annamite mountain range. *Vietnamese Journal of Primatology*, **4**, 1–12.

Thornton, S.M., Walker, S. and Zuckerman, J.N. (2001). Management of hepatitis B virus infections in two gibbons and a western lowland gorilla in a zoological collection. *Veterinary Record*, **149**(4), 113–15. DOI: 10.1136/vr.149.4.113.

Thorpe, W.H. (1963). *Learning and Instinct in Animals.* London, UK: Methuen.

Tindana, P., Molyneux, C.S., Bull, S. and Parker, M. (2014). Ethical issues in the export, storage and reuse of human biological samples in biomedical research: perspectives of key stakeholders in Ghana and Kenya. *BMC Medical Ethics*, **15**(1), 76. DOI: 10.1186/1472-6939-15-76.

Toft, J.D., II (1982). The pathoparasitology of the alimentary tract and pancreas of nonhuman primates: a review. *Veterinary Pathology*, **19**(S7), 44–92.

Toft, J.D., II (1986). The pathoparasitology of nonhuman primates: a review. In *Primates: The Road to Self-Sustaining Populations*, ed. K. Benirschke. New York, NY: Springer, pp. 571–679. DOI: 10.1007/978-1-4612-4918-4_45.

Tolbert, S., Makambo, W., Asuma, S., Musema, A. and Mugabukomeye, B. (2019). The perceived benefits of protected areas in the Virunga-Bwindi Massif. *Environmental Conservation*, **46**(1), 76–83. DOI: 10.1017/S0376892918000309.

Tong, L.J., Flach, E.J., Sheppard, M.N., *et al.* (2014). Fatal arrhythmogenic right ventricular cardiomyopathy in 2 related subadult chimpanzees (*Pan troglodytes*). *Veterinary Pathology*, **51**(4), 858–67. DOI: 10.1177/0300985813501333.

Toppenberg-Pejcic, D., Noyes, J., Allen, T., *et al.* (2019). Emergency risk communication: lessons learned from a rapid review of recent gray literature on Ebola, Zika, and yellow fever. *Health Communication*, **34**(4), 437–55. DOI: 10.1080/10410236.2017.1405488.

TRAFFIC (2022). Financial flows toolkit to tackle illegal wildlife trade. *TRAFFIC NEWS*, March 3, 2022. Available at: https://www.traffic.org/news/uk-iwt-financial-flows-toolkit-launch/.

Travis, D.A., Lonsdorf, E.V. and Gillespie, T.R. (2018). The grand challenge of great ape health and conservation in the anthropocene. *American Journal of Primatology*, **80**(1), e22717. DOI: 10.1002/ajp.22717.

Trayford, H.R. and Farmer, K.H. (2012). An assessment of the use of telemetry for primate reintroductions. *Journal for Nature Conservation*, **20**, 311–25. DOI: 10.1016/j.jnc.2012.07.004.

Tremaroli, V. and Bäckhed, F. (2012). Functional interactions between the gut microbiota and host metabolism. *Nature*, **489**(7415), 242–9. DOI: 10.1038/nature11552.

Trivedy, C. (2020). Is 2020 the year when primatologists should cancel fieldwork? A reply. *American Journal of Primatology*, **82**(8), e23173. DOI: 10.1002/ajp.23173.

Trogisch, L. and Fletcher, R. (2022). Fortress tourism: exploring dynamics of tourism, security and peace around the Virunga transboundary conservation area. *Journal of Sustainable Tourism*, **30**(2–3), 352–71. DOI: 10.1080/09669582.2020.1857767.

Truelove, M.A., Martin, J.E., Langford, F.M. and Leach, M.C. (2020). The identification of effective welfare indicators for laboratory-housed macaques using a Delphi consultation process. *Scientific Reports*, **10**, 20402. DOI: 10.1038/s41598-020-77437-9.

Truman, R. (2005). Leprosy in wild armadillos. *Leprosy Review*, **76**(3), 198–208.

Tshibangu, G.M. (2018). An analysis of strategic environmental assessment legislation and regulations in African countries. *Journal of Environmental Assessment Policy and Management*, **20**(1), 1–26. DOI: https://www.jstor.org/stable/90020684.

Tsujino, R., Yumoto, T., Kitamura, S., Djamaluddin, I. and Darnaedi, D. (2016). History of forest loss and degradation in Indonesia. *Land Use Policy*, **57**, 335–47. DOI: 10.1016/j.landusepol.2016.05.034.

Tumusiime, D. and Vedeld, P. (2012). False promise or false premise? Using tourism revenue sharing to promote conservation and poverty reduction in Uganda. *Conservation and Society*, **10**(1), 15–28. DOI: 10.4103/0972-4923.92189.

Turnbaugh, P.J., Bäckhed, F., Fulton, L. and Gordon, J.I. (2008). Diet-induced obesity is linked to marked but reversible alterations in the mouse distal gut microbiome. *Cell Host & Microbe*, **3**(4), 213–23. DOI: 10.1016/j.chom.2008.02.015.

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Turner, W.C., Kausrud, K.L., Krishnappa, Y.S., *et al.* (2014). Fatal attraction: vegetation responses to nutrient inputs attract herbivores to infectious anthrax carcass sites. *Proceedings of the Royal Society B: Biological Sciences*, **281**(1795), 20141785. DOI: 10.1098/rspb.2014.1785.

Tutin, C.E.G., Ancrenaz, M., Paredes, J., *et al.* (2001). Conservation biology framework for the release of wild-born orphaned chimpanzees into the Conkouati Reserve, Congo. *Conservation Biology*, **15**(5), 1247–57. DOI: 10.1111/j.1523-1739.2001.00046.x.

Tutin, C.E.G. and Fernandez, M. (1991). Responses of wild chimpanzees and gorillas to the arrival of primatologists: behaviour observed during habituation. In *Primate Responses to Environmental Change*, ed. H. O. Box. Dordrecht, the Netherlands: Springer, pp. 187–97. DOI: 10.1007/978-94-011-3110-0_10.

Tweh, C.G., Lormie, M.M., Kouakou, C.Y., *et al.* (2015). Conservation status of chimpanzees *Pan troglodytes verus* and other large mammals in Liberia: a nationwide survey. *Oryx*, **49**(4), 710–18. DOI: 10.1017/S0030605313001191.

Twycross Zoo (n.d.). *Ape Heart Project.* Twycross, UK: Twycross Zoo. Available at: https://twycrosszoo.org/conservation/research-at-twycross-zoo/ape-heart-project/. Accessed: January, 2022.

Tyler, A.D., Mataseje, L., Urfano, C.J., *et al.* (2018). Evaluation of Oxford Nanopore's MinION sequencing device for microbial whole genome sequencing applications. *Scientific Reports*, **8**, 10931. DOI: 10.1038/s41598-018-29334-5.

UBOS and ICF (2018). *Uganda Demographic and Health Survey 2016.* Kampala, Uganda, and Rockville, MD: Uganda Bureau of Statistics (UBOS) and ICF. Available at: https://dhsprogram.com/pubs/pdf/FR333/FR333.pdf.

UN [United Nations] (2019). Increased community-based engagement seen as critical to build climate action and achieve the Sustainable Development Goals. *Sustainable Development Goals*, July 19, 2019. Available at: https://www.un.org/sustainabledevelopment/blog/2019/07/increased-community-based-engagement-seen-as-critical-to-build-climate-action-and-achieve-the-sustainable-development-goals/.

UN DESA (n.d.). *The 17 Goals.* New York, NY: United Nations (UN) Department of Economic and Social Affairs (DESA). Available at: https://sdgs.un.org/goals. Accessed: March, 2021.

UNCST (2020). *National Guidelines for Conduct of Research During Coronavirus Disease 2019 (COVID-19) Pandemic.* Kampala, Uganda: Uganda National Council for Science and Technology (UNCST).

UNDP (n.d.). *Human Development Index (HDI).* United Nations Development Programme (UNDP). Available at: http://hdr.undp.org/en/content/human-development-index-hdi. Accessed: January, 2021.

UNDRR (2015). *Sendai Framework for Disaster Risk Reduction 2015–2030.* Geneva, Switzerland: United Nations Office for Disaster Risk Reduction (UNDRR). Available at: https://www.preventionweb.net/files/43291_sendaiframeworkfordrren.pdf.

UNDRR (n.d.-a). *Sendai Framework Terminology on Disaster Risk Reduction: Contingency Planning.* Geneva, Switzerland: United Nations Office for Disaster Risk Reduction (UNDRR). Available at: https://www.undrr.org/terminology/contingency-planning. Accessed: July, 2022.

UNDRR (n.d.-b). *Sendai Framework Terminology on Disaster Risk Reduction: Disaster.* Geneva, Switzerland: United Nations Office for Disaster Risk Reduction (UNDRR). Available at: https://www.undrr.org/terminology/disaster. Accessed: July, 2022.

UNDRR (n.d.-c). *What is the Sendai Framework for Disaster Risk Reduction?* Geneva, Switzerland: United Nations Office for Disaster Risk Reduction (UNDRR). Available at: https://www.undrr.org/implementing-sendai-framework/what-sendai-framework. Accessed: July, 2022.

UNDRR DesInventar Sendai (n.d.). *Sendai Framework for Disaster Risk Reduction. DesInventar as a Disaster Information Management System.* Geneva, Switzerland: United Nations Office for Disaster Risk Reduction (UNDRR). Available at: https://www.desinventar.net/what_is.html. Accessed: July, 2022.

UNEP (2020). Virus which causes COVID-19 threatens great ape conservation. Interview with Johannes Refisch, United Nations Great Apes Survival Partnership Programme, Manager and Coordinator *UN Environment Programme News and Stories*, March 25, 2020. Available at: https://www.unep.org/news-and-stories/story/virus-which-causes-covid-19-threatens-great-ape-conservation. Accessed: July, 2022.

UNEP (2022). *UNEP/EA.5/Res.1. Resolution Adopted by the United Nations Environment Assembly on 2 March 2022 5/1.* Nairobi, Kenya: United Nations Environment Assembly of the United Nations Environment Programme (UNEP). Available at: https://wedocs.unep.org/bitstream/handle/20.500.11822/39795/ANIMAL%20WELFARE%e2%80%93ENVIRONMENT%e2%80%93SUSTAINABLE%20DEVELOPMENT%20NEXUS.%20English.pdf?sequence=1&isAllowed=y. Accessed: July, 2022.

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UNEP and ILRI (2020). *Preventing the Next Pandemic: Zoonotic Diseases and How to Break the Chain of Transmission*. Nairobi, Kenya: United Nations Environment Programme (UNEP) and International Livestock Research Institute (ILRI). Available at: https://www.unep.org/resources/report/preventing-future-zoonotic-disease-outbreaks-protecting-environment-animals-and.

UNEP-WCMC (2021a). *Protected Area Profile for Cameroon from the World Database of Protected Areas*, October 2021. Cambridge, UK: UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) and International Union for Conservation of Nature (IUCN). Available at: https://www.protectedplanet.net.

UNEP-WCMC (2021b). *Protected Area Profile for Central African Republic from the World Database of Protected Areas*, October 2021. Cambridge, UK: United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) and International Union for Conservation of Nature (IUCN). Available at: https://www.protectedplanet.net.

UNEP-WCMC (2021c). *Protected Area Profile for Democratic Republic of Congo from the World Database of Protected Areas*, October 2021. Cambridge, UK: United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) and International Union for Conservation of Nature (IUCN). Available at: https://www.protectedplanet.net.

UNEP-WCMC (2021d). *Protected Area Profile for Indonesia from the World Database of Protected Areas*, October 2021. Cambridge, UK: United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) and International Union for Conservation of Nature (IUCN). Available at: https://www.protectedplanet.net.

UNEP-WCMC (2021e). *Protected Area Profile for Republic of Congo from the World Database of Protected Areas*, October 2021. Cambridge, UK: United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) and International Union for Conservation of Nature (IUCN). Available at: https://www.protectedplanet.net.

UNEP-WCMC (2021f). *Protected Area Profile for Rwanda from the World Database of Protected Areas*, October 2021. Cambridge, UK: United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) and International Union for Conservation of Nature (IUCN). Available at: https://www.protectedplanet.net.

UNEP-WCMC (2021g). *Protected Area Profile for Senegal from the World Database of Protected Areas*, October 2021. Cambridge, UK: United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) and International Union for Conservation of Nature (IUCN). Available at: https://www.protectedplanet.net.

UNEP-WCMC (2021h). *Protected Area Profile for Tanzania from the World Database of Protected Areas*, October 2021. Cambridge, UK: United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) and International Union for Conservation of Nature (IUCN). Available at: https://www.protectedplanet.net.

UNEP-WCMC (2021i). *Protected Area Profile for Uganda from the World Database of Protected Areas*, October 2021. Cambridge, UK: United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) and International Union for Conservation of Nature (IUCN). Available at: https://www.protectedplanet.net.

UNESCO (2020). UNESCO supports the development of a regional contingency plan for protecting mountain gorillas, conservation personnel, tourists and park adjacent communities from SARS CoV-19. *UNESCO [United Nations Educational, Scientific and Cultural Organization] Press Release*, May 4, 2020. Available at: https://en.unesco.org/news/unesco-supports-development-regional-contingency-plan-protecting-mountain-gorillas-0.

UNESCO World Heritage Convention (2020). Safeguarding the endangered mountain gorilla during COVID-19 crisis. *UNESCO World Heritage Convention News*, June 23, 2020. Available at: http://whc.unesco.org/en/news/2125/.

UNGA (2019). *A/74/199. Third Industrial Development Decade for Africa (2016–2025). Note / by the Secretary General*. New York, NY: United Nations General Assembly (UNGA). Available at: https://digitallibrary.un.org/record/3824252?ln=en.

UNHCR (2015). *Emergency Response Planning (ERP). Draft for Field Testing. Emergency Handbook*. Geneva, Switzerland: Inter-Agency Standing Committee (IASC) United Nations High Commissioner for Refugees

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(UNHCR). Available at: https://cms.emergency.unhcr.org/documents/11982/54224/Emergency+Response+Preparedness+July+2015/cc602e5b-7084-483d-becb-ea72286cc00e#_ga=2.170040233.841944529.1658964322-1951150208.1658964322.

UNISDR (2010). *Early Warning Practices can Save Many Lives: Good Practices and Lessons Learned.* Bonn, Germany: United Nations Secretariat of the International Strategy for Disaster Reduction (UNISDR) Platform for the Promotion of Early Warning. Available at: https://www.unisdr.org/files/15254_EWSBBLLfinalweb.pdf.

University of Birmingham (n.d.). *Enclosure Design Tool.* Birmingham, UK: University of Birmingham. Available at: https://www.birmingham.ac.uk/schools/biosciences/research/showcase/enclosure-design-tool/index.aspx. Accessed: May, 2022.

University of Minnesota (n.d.-a). *Canvas Login.* St Paul, MN: University of Minnesota, College of Veterinary Medicine. Available at: https://umnadvet.instructure.com/login/canvas. Accessed: October, 2022.

University of Minnesota (n.d.-b). *Non Human Primate COVID-19 Information Hub.* St Paul, MN: University of Minnesota, College of Veterinary Medicine. Available at: https://umnadvet.instructure.com/courses/324. Accessed: September, 2022.

UNOOSA (n.d.). *Information Management for Disaster-Risk Reduction.* Vienna, Austria: United Nations Office for Outer Space Affairs (UNOOSA) UN-SPIDER Knowledge Portal. Available at: http://www.un-spider.org/risks-and-disasters/disaster-risk-management/information-management. Accessed: July, 2022.

Unwin, S., Chatterton, J. and Chantrey, J. (2013). Management of severe respiratory tract disease caused by human respiratory syncytial virus and *Streptococcus pneumoniae* in captive chimpanzees (*Pan troglodytes*). *Journal of Zoo and Wildlife Medicine*, **44**(1), 105–15.

Unwin, S., Commitante, R., Moss, A., *et al.* (2022). Evaluating the contribution of a wildlife health capacity building program on orangutan conservation. *American Journal of Primatology*, **84**(4–5), e23273. DOI: 10.1002/ajp.23273.

USAID (n.d.). *Emerging Pandemic Threats.* Washington DC: United States Agency for International Development (USAID). Available at: https://www.usaid.gov/news-information/fact-sheets/emerging-pandemic-threats-program. Accessed: January, 2021.

USDA (2020). *USDA to Launch Updated Animal Welfare Act Compliance Database and Public Search Tool.* Washington DC: US Department of Agriculture (USDA). Available at: https://www.aphis.usda.gov/aphis/newsroom/stakeholder-info/sa_by_date/sa-2020/sa-08/updated-awa-database.

Utami-Atmoko, S.S., Singleton, I., van Noordwijk, M.A., van Schaik, C.P. and Mitra Setia, T. (2009). Male–male relationships in orangutans. In *Orangutans: Geographic Variation in Behavioral Ecology and Conservation*, ed. S. A. Wich, S. S. Utami-Atmoko, T. Mitra Setia, C. P. van Schaik and M. A. van Noordwijk. Oxford, UK: Oxford University Press, pp. 225–33.

Utami-Atmoko, S.S., Traylor-Holzer, K., Rifqi, M.A., *et al.*, ed. (2017). *Orangutan Population and Habitat Viability Assessment: Final Report*. Apple Valley, MN: International Union for Conservation of Nature (IUCN) Species Survival Commission (SSC) Conservation Breeding Specialist Group. Available at: https://www.cbsg.org/sites/cbsg.org/files/documents/2016%20Orangutan%20PHVA.pdf.

Utermohlen, M. and Baine, P. (2018). *In Plane Sight: Wildlife Trafficking in the Air Transport Sector.* Washington DC: Center for Advanced Defense (C4ADS). Available at: https://www.traffic.org/publications/reports/in-plane-sight.

UWA (2020a). *Standard Operating Procedures for Tourism Services and Research Activities in UWA Estates and the Reopening of the Protected Areas to the General Public during Covid-19 Pandemic.* Kampala, Uganda: Uganda Wildlife Authority (UWA).

UWA (2020b). *Uganda Wildlife Authority Ranger Based Monitoring Data for 2020, Bwindi Impenetrable National Park, Buhoma, Kanungu.* Internal data seen by author. Kampala, Uganda: Uganda Wildlife Authority (UWA).

UWA (2022). *Conservation Tariff July 2022 to June 2024.* Kampala, Uganda: Uganda Wildlife Authority (UWA). Available at: https://ugandawildlife.org/uwa-rates/.

Vale (n.d.). *Biodiversity.* Rio de Janeiro, Brazil: Vale. Available at: https://www.vale.com/web/esg/biodiversity. Accessed: October, 2022.

Van Hamme, G., Svensson, M.S., Morcatty, T.Q., Nekaris, K.A.-I. and Nijman, V. (2021). Keep your distance: using Instagram posts to evaluate the risk of anthroponotic disease transmission in gorilla ecotourism. *People and Nature*, **3**(2), 325–34. DOI: 10.1002/pan3.10187.

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Van Herck, K., Castelli, F., Zuckerman, J., *et al.* (2004). Knowledge, attitudes and practices in travel-related infectious diseases: the European Airport Survey. *Journal of Travel Medicine*, **11**(1), 3–8. DOI: 10.2310/7060.2004.13609.

Van Heuverswyn, F., Li, Y., Bailes, E., *et al.* (2007). Genetic diversity and phylogeographic clustering of SIVcpzPtt in wild chimpanzees in Cameroon. *Virology*, **368**(1), 155–71.

van Noordwijk, M.A., Arora, N., Willems, E.P., *et al.* (2012). Female philopatry and its social benefits among Bornean orangutans. *Behavioral Ecology and Sociobiology*, **66**, 823–34.

van Noordwijk, M.A., Sauren, S.E.B., Nuzuar, *et al.* (2009). Development of independence: Sumatran and Bornean orangutans compared. In *Orangutans: Geographic Variation in Behavioral Ecology and Conservation*, ed. S. A. Wich, S. S. Utami-Atmoko, T. Mitra Setia and C. P. van Schaik. Oxford, UK: Oxford University Press, pp. 189–203.

van Noordwijk, M.A., Utami-Atmoko, S.S., Knott, C.D., *et al.* (2018). The slow ape: high infant survival and long interbirth intervals in wild orangutans. *Journal of Human Evolution*, **125**, 38–49. DOI: 10.1016/j.jhevol.2018.09.004.

van Noordwijk, M.A., Willems, E.P., Utami-Atmoko, S.S., Kuzawa, C.W. and van Schaik, C.P. (2013). Multi-year lactation and its consequences in Bornean orangutans (*Pongo pygmaeus wurmbii*). *Behavioral Ecology and Sociobiology*, **67**(5), 805–14. DOI: 10.1007/s00265-013-1504-y.

van Schaik, C.P. (1999). The socioecology of fission–fusion sociality in orangutans. *Primates*, **40**(1), 69–86. DOI: 10.1007/BF02557703.

Varkey, B. (2021). Principles of clinical ethics and their application to practice. *Medical Principles and Practice*, **30**(1), 17–28. DOI: 10.1159/000509119.

Varner, G. (1998). *In Nature's Interests? Interests, Animal Rights, and Environmental Ethics.* New York, NY: Oxford University Press.

Vaz, M., Sridhar, T.S. and Pai, S.A. (2016). The ethics of research on stored biological samples: outcomes of a workshop. *Indian Journal of Medical Ethics*, **1**(2), 118–22. DOI: 10.20529/ijme.2016.032.

Veasey, J.S. (2020a). Assessing the psychological priorities for optimising captive Asian elephant (*Elephas maximus*) welfare. *Animals*, **10**(1), 39. DOI: 10.3390/ani10010039.

Veasey, J.S. (2020b). Can zoos ever be big enough for large wild animals? A review using an expert panel assessment of the psychological priorities of the Amur tiger (*Panthera tigris altaica*) as a model species. *Animals*, **10**(9), 1536. DOI: 10.3390/ani10091536.

Venter, O., Sanderson, E.W., Magrach, A., *et al.* (2016). Sixteen years of change in the global terrestrial human footprint and implications for biodiversity conservation. *Nature Communications*, **7**, 12558. DOI: 10.1038/ncomms12558.

Verburg-van Kemenade, B.M.L., Cohen, N. and Chadzinska, M. (2017). Neuroendocrine–immune interaction: evolutionarily conserved mechanisms that maintain allostasis in an ever-changing environment. *Developmental & Comparative Immunology*, **66**, 2–23. DOI: 10.1016/j.dci.2016.05.015.

Verweij, M. and Bovenkerk, B. (2016). Ethical promises and pitfalls of One Health. *Public Health Ethics*, **9**(1), 1–4. DOI: 10.1093/phe/phw003.

Viciunaite, V. and Alfnes, F. (2020). Informing sustainable business models with a consumer preference perspective. *Journal of Cleaner Production*, **242**, 118417. DOI: 10.1016/j.jclepro.2019.118417.

Vidal, J. (2015). Indonesia's forest fires threaten a third of world's wild orangutans. *The Guardian*, October 26, 2015. Available at: https://www.theguardian.com/environment/2015/oct/26/indonesias-forest-fires-threaten-a-third-of-worlds-wild-orangutans.

Videan, E.N., Fritz, J. and Murphy, J. (2008). Effects of aging on hematology and serum clinical chemistry in chimpanzees (*Pan troglodytes*). *American Journal of Primatology*, **70**(4), 327–38. DOI: 10.1002/ajp.20494.

Videan, E.N., Heward, C.B., Fritz, J., *et al.* (2007). Relationship between sunlight exposure, housing condition, and serum vitamin D and related physiologic biomarker levels in captive chimpanzees (*Pan troglodytes*). *Comparative Medicine*, **57**(4), 402–6.

Virunga National Park (n.d.-a). *The History of Virunga National Park.* Virunga, Democratic Republic of Congo: Virunga National Park. Available at: https://virunga.org/about/. Accessed: April, 2022.

Virunga National Park (n.d.-b). *Virunga National Park Temporarily Closes Mountain Gorilla Tourism Due to COVID-19*. Kinshasa, DRC: Virunga National Park. Available at: https://virunga.org/news/virunga-national-park-temporarily-closes-mountain-gorilla-tourism-due-to-covid-19/. Accessed: April, 2022.

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Virunga National Park Congo (n.d.). *Virunga National Park Reopens for Tourism.* Virunga National Park Congo. Available at: https://www.virungaparkcongo.com/information/virunga-national-park-reopens-for-tourism/. Accessed: April, 2022.

Visit Rwanda (n.d.). *Gorilla Tracking.* Kigali, Rwanda: Rwanda Development Board. Available at: https://www.visitrwanda.com/interests/gorilla-tracking/. Accessed: August, 2022.

Vitone, N.D., Altizer, S. and Nunn, C.L. (2004). Body size, diet and sociality influence the species richness of parasitic worms in anthropoid primates. *Evolutionary Ecology Research*, **6**(2), 183–99.

Vogel, E.R. (2018). Wildfire smoke could have lasting effects for endangered orangutans. *Laboratory for Primate Dietary Ecology and Physiology*, May 15, 2018. Available at: https://erinvogelphd.wordpress.com/2018/05/15/wildfire-smoke-could-have-lasting-effects-for-endangered-orangutans/.

Voigt, M., Wich, S.A., Ancrenaz, M., *et al.* (2018). Global demand for natural resources eliminated more than 100,000 Bornean orangutans. *Current Biology*, **28**(5), 761–9. DOI: 10.1016/j.cub.2018.01.053.

von Magnus, P., Andersen, E.K., Petersen, K.B. and Birch-Andersen, A. (1959). A pox-like disease in cynomolgus monkeys. *Acta Pathologica Microbiologica Scandinavica*, **46**(2), 156–76. DOI: 10.1111/j.1699-0463.1959.tb00328.x.

Vucetich, J.A., Burnham, D., Macdonald, E.A., *et al.* (2018). Just conservation: what is it and should we pursue it? *Biological Conservation*, **221**, 23–33. DOI: 10.1016/j.biocon.2018.02.022.

Walaga, P. and Mashoo, E. (2009). Uganda earns Shs488 billion from gorilla tourism. *The Daily Monitor*, April 20, 2009.

Walhisumut, O. (2021). WALHI North Sumatra files lawsuit against PT. Nuansa Alam Nusantara for illegally keeping animals in a zoo without permits. *WALHI North Sumatra Press Release*, April 13, 2021. Available at: http://walhisumut.org/2021/04/13/walhi-north-sumatra-files-lawsuit-against-pt-nuansa-alam-nusantara-for-illegally-keeping-animals-in-a-zoo-without-permits/.

Walker, K.K., Walker, C.S., Goodall, J. and Pusey, A.E. (2018). Maturation is prolonged and variable in female chimpanzees. *Journal of Human Evolution*, **114**, 131–40. DOI: 10.1016/j.jhevol.2017.10.010.

Walker, S.L., Withington, S.G. and Lockwood, D.N.J. (2014). Leprosy. In *Manson's Tropical Infectious Diseases*, 23rd edn, ed. J. Farrar, P. J. Hotez, T. Junghanss, *et al.* London, UK: W.B. Saunders, pp. 506–18.e1. DOI: 10.1016/B978-0-7020-5101-2.00042-X.

Wallace, R.G., Bergmann, L., Kock, R., *et al.* (2015). The dawn of Structural One Health: a new science tracking disease emergence along circuits of capital. *Social Science & Medicine*, **129**, 68–77. DOI: 10.1016/j.socscimed.2014.09.047.

Wallach, A.D., Batavia, C., Bekoff, M., *et al.* (2020). Recognizing animal personhood in compassionate conservation. *Conservation Biology*, **34**(5), 1097–106. DOI: 10.1111/cobi.13494.

Wallach, A.D., Bekoff, M., Batavia, C., Nelson, M.P. and Ramp, D. (2018). Summoning compassion to address the challenges of conservation. *Conservation Biology*, **32**(6), 1255–65. DOI: 10.1111/cobi.13126.

Wallis, J. and Lee, D.R. (1999). Primate conservation: the prevention of disease transmission. *International Journal of Primatology*, **20**, 803–26. DOI: 10.1023/A:1020879700286.

Walraven, E. and Duffy, S. (2017). Embedding animal welfare in staff culture: the Taronga Conservation Society Australia experience. *International Zoo Yearbook*, **51**(1), 203–14. DOI: 10.1111/izy.12149.

Walsh, P.D., Abernethy, K.A., Bermejo, M., *et al.* (2003). Catastrophic ape decline in western equatorial Africa. *Nature*, **422**(6932), 611–14. DOI: 10.1038/nature01566.

Walsh, P.D., Kurup, D., Hasselschwert, D.L., *et al.* (2017). The final (oral Ebola) vaccine trial on captive chimpanzees? *Scientific Reports*, **7**, 43339. DOI: 10.1038/srep43339.

Waltner-Toews, D., Kay, J.J. and Lister, N.M.E. (2008). *The Ecosystem Approach: Complexity, Uncertainty, and Managing for Sustainability.* New York, NY: Columbia University Press.

Wang, C.-B., Zhao, L.-X., Jin, C.-Z., *et al.* (2014). New discovery of Early Pleistocene orangutan fossils from Sanhe Cave in Chongzuo, Guangxi, southern China. *Quaternary International*, **354**, 68–74. DOI: 10.1016/j.quaint.2014.06.020.

WAP (2017). *A Close Up on Cruelty: The Harmful Impact of Wildlife Selfies in the Amazon.* London, UK: World Animal Protection (WAP).

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WAP (2019). *The Show Can't Go On: End the Suffering of Wild Animals at Cruel Visitor Attractions in Zoos and Aquariums.* London, UK: World Animal Protection (WAP). Available at: https://www.changeforanimals.org/help-end-animal-abuse-in-top-zoos.

WAP (n.d.-a). *Animal Protection Index.* London, UK: World Animal Protection (WAP). Available at: https://api.worldanimalprotection.org/. Accessed: October, 2020.

WAP (n.d.-b). *Animal Protection Index: China.* London, UK: World Animal Protection (WAP). Available at: https://api.worldanimalprotection.org/country/china. Accessed: October, 2020.

WAP (n.d.-c). *Methodology.* London, UK: World Animal Protection (WAP). Available at: https://api.worldanimalprotection.org/methodology. Accessed: December, 2020.

Ward, S.J., Williams, E., Groves, G., Marsh, S. and Morgan, D. (2020). Using zoo welfare assessments to identify common issues in developing country zoos. *Animals*, **10**(11), 2101. DOI: 10.3390/ani10112101.

Warfield, K.L., Goetzmann, J.E., Biggins, J.E., *et al.* (2014). Vaccinating captive chimpanzees to save wild chimpanzees. *Proceedings of the National Academy of Sciences*, **111**(24), 8873–6. DOI: 10.1073/pnas.1316902111.

Wark, J.D., Cronin, K.A., Niemann, T., *et al.* (2019). Monitoring the behavior and habitat use of animals to enhance welfare using the ZooMonitor App. *Animal Behavior and Cognition*, **6**(3), 158–67. DOI: 10.26451/abc.06.03.01.2019.

Warren, C.E., Bellows, B., Marcus, R., *et al.* (2021). Strength in diversity: integrating community in primary health care to advance universal health coverage. *Global Health: Science and Practice*, **9**(S1), S1–5. DOI: 10.9745/ghsp-d-21-00125.

Warren, K.S. (2001). *Orang-utan conservation: epidemiological aspects of health management and population genetics.* PhD thesis. Mudoch, Australia: Murdoch University.

Warren, K.S., Heeney, J.L., Swan, R.A., Heriyanto and Verschoor, E.J. (1999). A new group of hepadnaviruses naturally infecting orangutans (*Pongo pygmaeus*). *Journal of Virology*, **73**(9), 7860–5. DOI: 10.1128/JVI.73.9.7860-7865.1999.

Wasser, S.K., Sewall, G. and Soules, M.R. (1993). Psychosocial stress as a cause of infertility. *Fertility and Sterility*, **59**(3), 685–9. DOI: 10.1016/S0015-0282(16)55824-5.

Waters, S., Hansen, M.F., Setchell, J.M., *et al.* (2023). *Responsible Primate-Watching for Tourists.* Gland, Switzerland: International Union for Conservation of Nature (IUCN) Species Survival Commission (SSC) Primate Specialist Group (PSG) Section for Human–Primate Interactions (SHPI). Available at: https://humanprimateinteractions.files.wordpress.com/2023/09/responsible-primate-watching-for-tourists.pdf.

Waters, S., Setchell, J.M., Maréchal, L., *et al.* (2021). *Best Practice Guidelines for Responsible Images of Non-Human Primates.* International Union for Conservation of Nature (IUCN) Species Survival Commission (SSC) Primate Specialist Group (PSG) Section for Human–Primate Interactions (SHPI). Available at: https://www.arcusfoundation.org/wp-content/uploads/2021/09/Best-Practices-for-Responsible-Images-of-Nonhuman-Primates.pdf.

Watson, J.E.M., Evans, T., Venter, O., *et al.* (2018). The exceptional value of intact forest ecosystems. *Nature Ecology & Evolution*, **2**(4), 599–610. DOI: 10.1038/s41559-018-0490-x.

Watters, J.V., Margulis, S.W. and Atsalis, S. (2009). Behavioral monitoring in zoos and aquariums: a tool for guiding husbandry and directing research. *Zoo Biology*, **28**(1), 35–48. DOI: 10.1002/zoo.20207.

Watts, D.P. (1989). Infanticide in mountain gorillas: new cases and a reconsideration of the evidence. *Ethology*, **81**(1), 1–18. DOI: 10.1111/j.1439-0310.1989.tb00754.x.

Watts, D.P., Muller, M., Amsler, S.J., Mbabazi, G. and Mitani, J.C. (2006). Lethal intergroup aggression by chimpanzees in Kibale National Park, Uganda. *American Journal of Primatology*, **68**(2), 161–80. DOI: 10.1002/ajp.20214.

Watts, J. (2019). Chinese dam project in Guinea could kill up to 1,500 chimpanzees. *The Guardian*, February 28, 2019. Available at: https://www.theguardian.com/world/2019/feb/28/chinese-dam-project-in-guinea-could-kill-up-to-1500-chimpanzees.

Waugh, W.L. and Liu, C.Y. (2014). Disasters, the whole community, and development as capacity building. In *Disaster and Development: Examining Global Issues and Cases*, ed. N. Kapucu and K. T. Liou. Cham, Switzerland: Springer International Publishing, pp. 167–79. DOI: 10.1007/978-3-319-04468-2_10.

WAZA (2019). WAZA works. 2nd WAZA animal welfare evaluation summit. *WAZA [World Association of Zoos and Aquariums] News*, **2019**(2), 29. DOI: https://www.waza.org/wp-content/uploads/2019/11/WAZA-magazine-02-final2.pdf.

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WAZA (n.d.). *How to Become a WAZA Member.* Barcelona, Spain: World Association of Zoos and Aquariums (WAZA). Available at: https://www.waza.org/members/how-to-become-a-waza-member/. Accessed: May, 2022.

WCS (n.d.-a). *The 2019 Berlin Principles on One Health.* New York, NY: Wildlife Conservation Society (WCS). Available at: https://oneworldonehealth.wcs.org/About-Us/Mission/The-2019-Berlin-Principles-on-One-Health.aspx#:~:text=Fifteen%20years%20ago%2C%20the%20Wildlife,%2C%20animal%2C%20and%20ecosystem%20health. Accessed: September, 2022.

WCS (n.d.-b). *The Conservation, Mitigation and Biodiversity Offset (COMBO) Program.* New York, NY: Wildlife Conservation Society (WCS). Available at: https://comboprogram.org/. Accessed: December, 2022.

WCS (n.d.-c). *Home.* Conakry, Republic of Guinea: Winning Consortium Simandou (WSC). Available at: https://wcsglobal.com/en/. Accessed: December, 2022.

WCS (n.d.-d). *Project Description.* Conakry, Republic of Guinea: Winning Consortium Simandou (WCS). Available at: https://wcsglobal.com/en/csr_part/project-description. Accessed: June, 2022.

Webber, B. and Vedder, A. (2001). *In the Kingdom of Gorillas.* New York, NY: Simon and Shuster.

Weber, A., Kalema-Zikusoka, G. and Stevens, N.J. (2020). Lack of rule-adherence during mountain gorilla tourism encounters in Bwindi Impenetrable National Park, Uganda, places gorillas at risk from human disease. *Frontiers in Public Health*, **8**, February 13, 2020. DOI: 10.3389/fpubh.2020.00001.

Wedana, M., Masnur, I., Ibrahim, S., *et al.* (2021). Reinforcement of an isolated Javan silvery gibbon population on Mt. Tilu, West Java. In *Global Conservation Translocation Perspectives: 2021. Case Studies From Around the Globe*, ed. P. S. Soorae. Gland, Switzerland: International Union for Conservation of Nature (IUCN) Species Survival Commission (SSC) Conservation Translocation Specialist Group, Environment Agency, Abu Dhabi, and Calgary Zoo, Canada, pp. 235–40. Available at: https://portals.iucn.org/library/sites/library/files/documents/2021-007-En.pdf.

Wendler, D. (2014). Should protections for research with humans who cannot consent apply to research with non-human primates? *Theoretical Medicine and Bioethics*, **35**(2), 157–73. DOI: 10.1007/s11017-014-9285-5.

Wenker, C., Hoby, S., Wyss, F., *et al.* (2019). Alveolar echinococcosis in western lowland gorillas (*Gorilla gorilla gorilla*): albendazole was not able to stop progression of the disease. *Journal of Zoo and Wildlife Medicine*, **50**(1), 243–53. DOI: 10.1638/2018-0064.

Werdenich, D., Dupain, J., Arnheim, E., *et al.* (2003). Reactions of chimpanzees and gorillas to human observers in a non-protected area in south-eastern Cameroon. *Folia Primatologica*, **74**(2), 97–100. DOI: 10.1159/000070005.

Wertheim, J.O., Smith, M.D., Smith, D.M., Scheffler, K. and Kosakovsky Pond, S.L. (2014). Evolutionary origins of human herpes simplex viruses 1 and 2. *Molecular Biology and Evolution*, **31**(9), 2356–64. DOI: 10.1093/molbev/msu185.

Wessling, E.G., Kühl, H.S., Mundry, R., Deschner, T. and Pruetz, J.D. (2018). The costs of living at the edge: seasonal stress in wild savanna-dwelling chimpanzees. *Journal of Human Evolution*, **121**, 1–11. DOI: 10.1016/j.jhevol.2018.03.001.

Westlund, K. (2015). Training laboratory primates: benefits and techniques. *Primate Biology*, **2**(1), 119–32. DOI: 10.5194/pb-2-119-2015.

Weston-Murphy, H. (2015). Great apes. In *Fowler's Zoo and Wild Animal Medicine, Volume 8*, ed. R. E. Miller and M. E. Fowler. St Louis, MO: W.B. Saunders, pp. 336–54. DOI: 10.1016/B978-1-4557-7397-8.00038-4.

WFA (2022). *Historic UN Resolution Recognizes Animal Welfare's Role in Sustainability.* World Federation for Animals (WFA). Available at: https://wfa.org/historic-un-resolution-recognizes-animal-welfares-role-in-sustainability/.

WFA (n.d.). *Achieving Global Impact For Animals – Together.* World Federation for Animals (WFA). Available at: https://wfa.org/. Accessed: May, 2022.

WFEN (n.d.). *Wildlife Friendly TM Tourism.* Wildlife Friendly Enterprise Network (WFEN). Available at: https://wildlifefriendly.org/wildlife-friendly-tourism/. Accessed: April, 2022.

WHA (2018). *Guidelines for Management of an Emergency Wildlife Disease Response. Working Draft November 2018.* Mosman, Australia: Wildlife Health Australia (WHA). Available at: https://wildlifehealthaustralia.com.au/WHADocuments.aspx.

Whitfort, A. (2019). Wildlife crime and animal victims: improving access to environmental justice in Hong Kong. *Journal of International Wildlife Law & Policy*, **22**(3), 203–30. DOI: 10.1080/13880292.2019.1677055.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 15 Nov 2026 at 20:46:16, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781009071727.013

Whitham, J. and Wielebnowski, N. (2015). WelfareTRAK. A tool for capturing zookeepers' assessment of animal welfare. *CONNECT (AZA News)*, January, 16–17.

Whitham, J.C. and Miller, L.J. (2016). Using technology to monitor and improve zoo animal welfare. *Animal Welfare*, **25**(4), 395–409. DOI: 10.7120/09627286.25.4.395.

Whitham, J.C. and Wielebnowski, N. (2009). Animal-based welfare monitoring: using keeper ratings as an assessment tool. *Zoo Biology*, **28**(6), 545–60. DOI: 10.1002/zoo.20281.

Whittaker, D. and Knight, R.L. (1998). Understanding wildlife responses to humans. *Wildlife Society Bulletin*, **26**, 312–17.

Whittaker, M. and Laule, G. (2012). Training techniques to enhance the care and welfare of nonhuman primates. *Veterinary Clinics of North America: Exotic Animal Practice*, **15**(3), 445–54. DOI: 10.1016/j.cvex.2012.06.004.

Whittier, C.A., Nutter, F.B., Johnson, P.L.F., *et al.* (2022). Population structure, intergroup interaction, and human contact govern infectious disease impacts in mountain gorilla populations. *American Journal of Primatology*, **84**(4–5), e23350. DOI: 10.1002/ajp.23350.

WHO (2012). *Social and Environmental Determinants.* Geneva, Switzerland: World Health Organization (WHO) Available at: https://www.euro.who.int/__data/assets/pdf_file/0006/185217/Social-and-environmental-determinants-Fact-Sheet.pdf.

WHO (2014). *Early Detection, Assessment and Response to Acute Public Health Events: Implementation of Early Warning and Response With a Focus on Event-Based Surveillance. Interim Version.* Geneva, Switzerland: World Health Organization (WHO). Available at: https://www.who.int/publications/i/item/WHO-HSE-GCR-LYO-2014.4.

WHO (2017a). *A Strategic Framework for Emergency Preparedness.* Geneva, Switzerland: World Health Organization (WHO). Available at: https://www.who.int/publications/i/item/a-strategic-framework-for-emergency-preparedness.

WHO (2017b). *WHO Simulation Exercise Manual.* Geneva, Switzerland: World Health Organization (WHO. Available at: https://www.who.int/publications/i/item/WHO-WHE-CPI-2017.10.

WHO (2018). *WHO Guidance for Contingency Planning.* Geneva, Switzerland: World Health Organization (WHO). Available at: https://apps.who.int/iris/bitstream/handle/10665/260554/WHO-WHE-CPI-2018.13-eng.pdf?ua=1.

WHO (2019). *Burn-Out an "Occupational Phenomenon": International Classification of Diseases.* Geneva, Switzerland: World Health Organization (WHO). Available at: https://www.who.int/mental_health/evidence/burn-out/en/.

WHO (2020a). *Basic Documents. Forty-ninth Edition. Including Amendments Adopted up to 31 May 2019.* Geneva, Switzerland: World Health Organization (WHO). Available at: https://apps.who.int/gb/bd/pdf_files/BD_49th-en.pdf.

WHO (2020b). *COVID-19 Public Health Emergency of International Concern (PHEIC). Global Research and Innovation Forum: Towards a Research Roadmap.* Geneva, Switzerland: World Health Organization (WHO). Available at: https://www.who.int/publications/m/item/covid-19-public-health-emergency-of-international-concern-(pheic)-global-research-and-innovation-forum.

WHO (2020c). *Global Tuberculosis Report.* Geneva, Switzerland: World Heath Organization (WHO). Available at: https://apps.who.int/iris/bitstream/handle/10665/336069/9789240013131-eng.pdf.

WHO (2020d). *Glossary of Health Emergency and Disaster Risk Management Terminology.* Geneva, Switzerland: World Health Organization (WHO). Available at: https://www.who.int/publications/i/item/9789240003699.

WHO (n.d.). *Tuberculosis.* Geneva, Switzerland: World Health Organization (WHO). Available at: https://www.who.int/health-topics/tuberculosis#tab=tab_1. Accessed: September, 2022.

WHO, FAO and OIE (2019). *Taking a Multisectoral, One Health Approach: A Tripartite Guide to Addressing Zoonotic Diseases in Countries.* Geneva, Switzerland: World Health Organization (WHO), Food and Agriculture Organization of the United Nations (FAO) and World Organisation for Animal Health (OIE). Available at: https://www.who.int/publications/i/item/9789241514934.

WHO/EHA (2002). *Disasters and Emergencies Definitions Training Package.* Addis Ababa, Ethiopia: World Health Organization (WHO)/Emergency and Humanitarian Action (EHA). Available at: https://apps.who.int/disasters/repo/7656.pdf.

Wich, S.A., de Vries, H., Ancrenaz, M., *et al.* (2009a). Orangutan life history variation. In *Orangutans: Geographic Variation in Behavioral Ecology and Conservation*, ed. S. A. Wich, S. S. Utami-Atmoko, T. Mitra Setia and C. P. van Schaik. Oxford, UK: Oxford Academic, pp. 65–75. DOI: 10.1093/acprof:oso/9780199213276.003.0005.

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Wich, S.A., Fredriksson, G., Usher, G., Kühl, H.S. and Nowak, M.G. (2019). The Tapanuli orangutan: status, threats, and steps for improved conservation. *Conservation Science and Practice*, **1**(6), e33. DOI: 10.1111/csp2.33.

Wich, S.A., Fredriksson, G.M., Usher, G., *et al.* (2012a). Hunting of Sumatran orang-utans and its importance in determining distribution and density. *Biological Conservation*, **146**(1), 163–9. DOI: 10.1016/j.biocon.2011.12.006.

Wich, S.A., Garcia-Ulloa, J., Kühl, Hjalmar S., *et al.* (2014a). Will oil palm's homecoming spell doom for Africa's great apes? *Current Biology*, **24**(14), 1659–63. DOI: 10.1016/j.cub.2014.05.077.

Wich, S.A., Gaveau, D., Abram, N., *et al.* (2012b). Understanding the impacts of land-use policies on a threatened species: is there a future for the Bornean orang-utan? *PLoS ONE*, **7**(11), e49142. DOI: 10.1371/journal.pone.0049142.

Wich, S.A., Geurts, M.L., Mitra Setia, T. and Utami-Atmoko, S.S. (2006). Influence of fruit availability on Sumatran orangutan sociality and reproduction. In *Feeding Ecology in Apes and Other Primates: Ecological, Physiological and Behavioural Aspects.* Cambridge Studies in Biological and Evolutionary Anthropology Volume 48, ed. G. Hohmann, M. M. Robbins and C. Boesch. Cambridge, UK: Cambridge University Press, pp. 337–58.

Wich, S.A. and Piel, A.K., ed. (2021). *Conservation Technology*. Oxford, UK: Oxford University Press. DOI: 10.1093/oso/9780198850243.001.0001.

Wich, S.A., Singleton, I., Nowak, M.G., *et al.* (2016). Land-cover changes predict steep declines for the Sumatran orangutan (*Pongo abelii*). *Science Advances*, **2**(3), e1500789. DOI: 10.1126/sciadv.1500789.

Wich, S.A., Usher, G., Peters, H.H., *et al.* (2014b). Preliminary data on the highland Sumatran orangutans (*Pongo abelii*) of Batang Toru. In *High Altitude Primates*, ed. N. B. Grow, S. Gursky-Doyen and A. Krzton. Cambridge, UK: Springer, pp. 265–83.

Wich, S.A., Utami-Atmoko, S., Mitra Setia, T. and van Schaik, C.P., ed. (2009b). *Orangutans: Geographic Variation in Behavioral Ecology and Conservation*. Oxford, UK: Oxford University Press.

Wiederholt, R. and Post, E. (2010). Tropical warming and the dynamics of endangered primates. *Biology Letters*, **6**(2), 257–60. DOI: 10.1098/rsbl.2009.0710.

Wiedmann, T., Lenzen, M., Keyßer, L.T. and Steinberger, J.K. (2020). Scientists' warning on affluence. *Nature Communications*, **11**(1), 3107. DOI: 10.1038/s41467-020-16941-y.

Wikelski, M. and Cooke, S.J. (2006). Conservation physiology. *Trends in Ecology & Evolution*, **21**(1), 38–46. DOI: 10.1016/j.tree.2005.10.018.

Wilcox, B.A., Aguirre, A.A., De Paula, N., Siriaroonrat, B. and Echaubard, P. (2019). Operationalizing One Health employing social-ecological systems theory: lessons from the Greater Mekong Sub-region. *Frontiers in Public Health*, **7**, 85. DOI: 10.3389/fpubh.2019.00085.

Wildlife Rescue Center Jogja (n.d.). *Giving Day For Apes.* Wildlife Rescue Center Jogja. Available at: https://wrcjogja.org/giving-day-for-apes-2020/. Accessed: October, 2020.

Wilkinson, D.A., Marshall, J.C., French, N.P. and Hayman, D.T.S. (2018). Habitat fragmentation, biodiversity loss and the risk of novel infectious disease emergence. *Journal of The Royal Society Interface*, **15**(149), 20180403. DOI: 10.1098/rsif.2018.0403.

Williams, D.R., Clark, M., Buchanan, G.M., *et al.* (2021). Proactive conservation to prevent habitat losses to agricultural expansion. *Nature Sustainability*, **4**(4), 314–22. DOI: 10.1038/s41893-020-00656-5.

Williams, J.L. and Behie, A.M. (2020). Northern yellow-cheeked crested gibbons (*Nomascus annamensis*) travel and scan more at the cost of rest when in the presence of tourists. *Animal Biology*, **70**(4), 427–43. DOI: 10.1163/15707563-bja10040.

Williams, J.M., Lonsdorf, E.V., Wilson, M.L., *et al.* (2008). Causes of death in the Kasekela chimpanzees of Gombe National Park, Tanzania. *American Journal of Primatology*, **70**(8), 766–77. DOI: 10.1002/ajp.20573.

Williamson, E.A. and Butynski, T.M. (2013a). *Gorilla beringei* eastern gorilla. In *Mammals of Africa. Volume II: Primates*, ed. T. M. Butynski, J. Kingdon and J. Kalina. London, UK: Bloomsbury Publishing, pp. 45–53.

Williamson, E.A. and Butynski, T.M. (2013b). *Gorilla gorilla* western gorilla. In *Mammals of Africa. Volume II: Primates*, ed. T. M. Butynski, J. Kingdon and J. Kalina. London, UK: Bloomsbury Publishing, pp. 39–45.

Williamson, E.A. and Feistner, A.T.C. (2011). Habituating primates: processes, techniques, variables and ethics. In *Field and Laboratory Methods in Primatology: A Practical Guide*, ed. D. J. Curtis and J. M. Setchell. Cambridge, UK: Cambridge University Press, pp. 33–50. DOI: 10.1017/CBO9780511921643.004.

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Williamson, E.A., Maisels, F.G., Groves, C.P., *et al.* (2013). Hominidae. In *Handbook of the Mammals of the World. Volume 3: Primates*, ed. R. A. Mittermeier, A. B. Rylands and D. E. Wilson. Barcelona, Spain: Lynx Edicions, pp. 792–854.

Williamson, E.A., Strindberg, S. and Maisels, F. (2018). New population estimate for western lowland gorillas. *Gorilla Journal*, **56**, 18–19. DOI: https://www.berggorilla.org/en/home/news-archive/article-view/new-population-estimate-for-western-lowland-gorillas/.

Williamson, E.A., Tutin, C.E.G., Rogers, M.E. and Fernandez, M. (1990). Composition of the diet of lowland gorillas at Lopé in Gabon. *American Journal of Primatology*, **21**(4), 265–77. DOI: 10.1002/ajp.1350210403.

Williamson, L. (2001). Mountain gorilla tourism: some costs and benefits. *Gorilla Journal*, **22**, 35–7.

Wilson, D. and Reeder, D. (2005). *Mammal Species of the World: A Taxonomic and Geographic Reference*, 3rd edn. Baltimore, MD: Johns Hopkins University Press.

Wilson, H.B., Meijaard, E., Venter, O., Ancrenaz, M. and Possingham, H.P. (2014a). Conservation strategies for orangutans: reintroduction versus habitat preservation and the benefits of sustainably logged forest. *PLoS ONE*, **9**(7), e102174. DOI: 10.1371/journal.pone.0102174.

Wilson, M.L., Boesch, C., Fruth, B., *et al.* (2014b). Lethal aggression in *Pan* is better explained by adaptive strategies than human impacts. *Nature*, **513**, 414–17. DOI: 10.1038/nature13727.

Wilson, P., Weavers, E., West, B., *et al.* (1984). *Mycobacterium bovis* infection in primates in Dublin Zoo: epidemiological aspects and implications for management. *Laboratory Animals*, **18**(4), 383–7. DOI: 10.1258/002367784780865351.

Wilson, R.P. and McMahon, C.R. (2006). Measuring devices on wild animals: what constitutes acceptable practice? *Frontiers in Ecology and the Environment*, **4**(3), 147–54. DOI: 10.1890/1540-9295(2006)004[0147:MDOWAW]2.0.CO;2.

Winders, D.J. (2017). Captive wildlife at a crossroads – sanctuaries, accreditation, and humane-washing. *Animal Studies Journal*, **6**(2), 161–78. DOI: https://ro.uow.edu.au/asj/vol6/iss2/9.

Winter, G., Hart, R.A., Charlesworth, R.P.G. and Sharpley, C.F. (2018). Gut microbiome and depression: what we know and what we need to know. *Reviews in the Neurosciences*, **29**(6), 629–43. DOI: 10.1515/revneuro-2017-0072.

Wise, S.M. (2010). Legal personhood and the nonhuman rights project. *Animal Law*, **17**(1), 1–11. DOI: https://www.animallaw.info/article/legal-personhood-and-nonhuman-rights-project.

Wise, S., Durham, D. and Banes, G.L. (2020). The campaign for non-human rights and the status of captive apes. In *State of the Apes: Killing, Capture, Trade and Conservation*, ed. Arcus Foundation. Cambridge, UK: Cambridge University Press, pp. 231–62. Available at: https://www.stateoftheapes.com/volume-4-killing-capture-trade/.

Wittig, R.M., Crockford, C., Weltring, A., *et al.* (2016). Social support reduces stress hormone levels in wild chimpanzees across stressful events and everyday affiliations. *Nature Communications*, **7**, 13361. DOI: 10.1038/ncomms13361.

Wiysonge, C.S. (2019). Vaccine hesitancy, an escalating danger in Africa. *Think Global Health*, December 17, 2019. Available at: https://www.thinkglobalhealth.org/article/vaccine-hesitancy-escalating-danger-africa.

WOAH (2021). *OIE Wildlife Health Framework: Protecting Wildlife Health to Achieve One Health.* Paris, France: World Organisation for Animal Health (WOAH/OIE). Available at: https://www.woah.org/fileadmin/Home/eng/Internationa_Standard_Setting/docs/pdf/WGWildlife/A_Wildlifehealth_conceptnote.pdf.

Wolf, T.M., Sreevatsan, S., Singer, R.S., *et al.* (2016). Noninvasive tuberculosis screening in free-living primate populations in Gombe National Park, Tanzania. *EcoHealth*, **13**(1), 139–44. DOI: 10.1007/s10393-015-1063-y.

Wolf, T.M., Sreevatsan, S., Travis, D., Mugisha, L. and Singer, R.S. (2014). The risk of tuberculosis transmission to free-ranging great apes. *American Journal of Primatology*, **76**(1), 2–13. DOI: 10.1002/ajp.22197.

Wolfensohn, S., Shotton, J., Bowley, H., *et al.* (2018). Assessment of welfare in zoo animals: towards optimum quality of life. *Animals*, **8**(7), 110. DOI: 10.3390/ani8070110.

Wong, S.L. (2020). When Covid resets ecotourism. *Earth Journalism Network*, September 8, 2020. Available at: https://earthjournalism.net/stories/when-covid-resets-ecotourism.

Wood, M.E. (2002). *Ecotourism: Principles, Practices and Policies for Sustainability.* Paris, France: United Nations Environment Programme (UNEP).

Wood, W. (1998). Interactions among environmental enrichment, viewing crowds, and zoo chimpanzees (*Pan troglodytes*). *Zoo Biology*, **17**(3), 211–30. DOI: 10.1002/(SICI)1098-2361(1998)17:3<211::AID-ZOO5>3.0.CO;2-C.

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Woodford, M.H., Butynski, T.M. and Karesh, W.B. (2002). Habituating the great apes: the disease risks. *Oryx*, **36**(2), 153–60. DOI: 10.1017/S0030605302000224.

World Bank (2016). *The Cost of Fire: An Economic Analysis of Indonesia's 2015 Fire Crisis. Indonesia Sustainable Landscapes Knowledge Note 1.* Jakarta, Indonesia: The World Bank. Available at: http://documents.worldbank.org/curated/en/776101467990969768/The-cost-of-fire-an-economic-analysis-of-Indonesia-s-2015-fire-crisis.

World Bank (2017). *The Growing Role of Minerals and Metals for a Low Carbon Future.* Washington DC: World Bank Group. Available at: https://documents.worldbank.org/en/publication/documents-reports/documentdetail/207371500386458722/The-Growing-Role-of-Minerals-and-Metals-for-a-Low-Carbon-Future.

World Bank (2018). *Closing the Potential–Performance Divide in Ugandan Agriculture.* Washington DC: World Bank Group. Available at: http://documents.worldbank.org/curated/en/996921529090717586/Closing-the-potential-performance-divide-in-Ugandan-agriculture.

World Bank (2021). Safeguarding animal, human and ecosystem health: One Health at the World Bank. *World Bank*, June 3, 2021. Available at: https://www.worldbank.org/en/topic/agriculture/brief/safeguarding-animal-human-and-ecosystem-health-one-health-at-the-world-bank.

World Bank Group (2018). *One Health: Operational Framework for Strengthening Human, Animal, and Environmental Public Health Systems at their Interface.* Washington DC: World Bank. Available at: http://documents1.worldbank.org/curated/en/703711517234402168/pdf/123023-REVISED-PUBLIC-World-Bank-One-Health-Framework-2018.pdf.

Wrangham, R.W. (1974). Artificial feeding of chimpanzees and baboons in their natural habitat. *Animal Behaviour*, **22**(1), 83–93. DOI: 10.1016/S0003-3472(74)80056-4.

Wrangham, R.W. (1986). Ecology and social relationships in two species of chimpanzee. In *Ecological Aspects of Social Evolution: Birds and Mammals*, ed. D. I. Rubenstein and R. W. Wrangham. Princeton, NJ: Princeton University Press, pp. 352–78.

Wright, E., Grueter, C.C., Seiler, N., *et al.* (2015). Energetic responses to variation in food availability in the two mountain gorilla populations (*Gorilla beringei beringei*). *American Journal of Physical Anthropology*, **158**(3), 487–500. DOI: 10.1002/ajpa.22808.

WTTC (2020). *Travel and Tourism: Economic Impact.* London, UK: World Travel & Tourism Council (WTTC).

WWF (2018). New Barclays policy to protect World Heritage sites: a welcome first step. *WWF [World Wide Fund for Nature] News*, May 1, 2018. Available at: https://wwf.panda.org/?327030/New-Barclays-policy-to-protect-World-Heritage-sites-a-welcome-first-step.

Wyatt, T., Maher, J., Allen, D., Clarke, N. and Rook, D. (2022). The welfare of wildlife: an interdisciplinary analysis of harm in the legal and illegal wildlife trades and possible ways forward. *Crime, Law and Social Change*, **77**(1), 69–89. DOI: 10.1007/s10611-021-09984-9.

Xie, L. (2021). *Valuing Inclusion and Diversity, Embracing Uncertainty: Ways Forward for Nature-based Solutions.* London, UK: The British Academy. DOI: 10.5871/bacop26/9780856726712.001.

Xie, T., Liu, W., Anderson, B.D., Liu, X. and Gray, G.C. (2017). A system dynamics approach to understanding the One Health concept. *PLoS ONE*, **12**(9), e0184430. DOI: 10.1371/journal.pone.0184430.

Xie, X., Li, Y., Chwang, A.T.Y., Ho, P.L. and Seto, W.H. (2007). How far droplets can move in indoor environments – revisiting the Wells evaporation-falling curve. *Indoor Air*, **17**(3), 211–25. DOI: 10.1111/j.1600-0668.2007.00469.x.

Yaguchi, Y., Okabayashi, S., Abe, N., *et al.* (2014). Genetic analysis of *Enterobius vermicularis* isolated from a chimpanzee with lethal hemorrhagic colitis and pathology of the associated lesions. *Parasitology Research*, **113**(11), 4105–9. DOI: 10.1007/s00436-014-4080-9.

Yamagiwa, J. and Basabose, A.K. (2009). Fallback foods and dietary partitioning among *Pan* and *Gorilla*. *American Journal of Physical Anthropology*, **140**(4), 739–50. DOI: 10.1002/ajpa.21102.

Yang, X.L., Zhang, Y.Z., Jiang, R.D., *et al.* (2017). Genetically diverse filoviruses in *Rousettus* and *Eonycteris* spp. bats, China, 2009 and 2015. *Emerging Infectious Diseases*, **23**(3), 482–6. DOI: 10.3201/eid2303.161119.

Yang, Y. and Jobin, C. (2014). Microbial imbalance and intestinal pathologies: connections and contributions. *Disease Models & Mechanisms*, **7**(10), 1131–42. DOI: 10.1242/dmm.016428.

Yeager, C.P. (1997). Orangutan rehabilitation in Tanjung Puting National Park, Indonesia. *Conservation Biology*, **11**(3), 802–5.

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YEL (n.d.-a). *Environmental Education.* Medan, Indonesia: Yayasan Ekosistem Lestari (YEL). Available at: https://www.yel.or.id/environmental-education/. Accessed: September, 2020.

YEL (n.d.-b). *Yayasan Ekosistem Lestari: The Foundation for a Sustainable Ecosystem.* Medan, Indonesia: Yayasan Ekosistem Lestari (YEL). Available at: https://www.yel.or.id/en/who-we-are. Accessed: September, 2020.

Yersin, H., Asiimwe, C., Voordouw, M.J. and Zuberbühler, K. (2017). Impact of snare injuries on parasite prevalence in wild chimpanzees (*Pan troglodytes*). *International Journal of Primatology*, **38**(1), 21–30. DOI: 10.1007/s10764-016-9941-x.

Yin, J., Lampert, A., Cameron, M., Robinson, B. and Power, P. (2012). Using social media to enhance emergency situation awareness. *IEEE Intelligent Systems*, November/December 2012, 52–9. DOI: https://delvalle.bphc.org/pluginfile.php/847/mod_resource/content/2/YIN-IS2012.pdf.

Yon, L., Williams, E., Harvey, N.D. and Asher, L. (2019). Development of a behavioural welfare assessment tool for routine use with captive elephants. *PLoS ONE*, **14**(2), e0210783. DOI: 10.1371/journal.pone.0210783.

Yu, E. and Fan, R. (2007). A Confucian view of personhood and bioethics. *Journal of Bioethical Inquiry*, **4**(3), 171–9. DOI: 10.1007/s11673-007-9072-3.

Yu, X. and Jia, W. (2015). *Moving Targets: Tracking Online Sales of Illegal Wildlife Products in China.* Cambridge, UK: TRAFFIC. Available at: https://www.traffic.org/publications/reports/moving-targets-tracking-online-sales-of-illegal-wildlife-products-in-china/.

ZAHN (2011). *Lessons Learned Annex.* Silver Spring, MD: Zoo Animal Health Network (ZAHN). Available at: https://zahp.org/wp-content/uploads/2020/11/Lessons_Learned_Chart.pdf.

ZAHP (2017). *Contingency Planning for the Exotic Animal Industry Workbook.* Silver Spring, MD: Zoo and Aquarium All Hazards Partnership (ZAHP). Available at: https://zahp.org/all-hazards/.

ZAHP (n.d.). *Is Your Facility Prepared?* Silver Spring, MD: Zoo and Aquarium All Hazards Partnership (ZAHP). Available at: https://zahp.org/. Accessed: November, 2021.

Zander, K.K., Pang, S.T., Jinam, C., Tuen, A.A. and Garnett, S.T. (2014). Wild and valuable? Tourist values for orang-utan conservation in Sarawak. *Conservation and Society*, **12**(1), 27–42.

ZBPWG (2011). *Zoological Best Practices Working Group Planning Roadmap – A Basic Guide for Emergency Planners for Managed Wildlife Facilities.* Zoo Best Practices Working Group for Disaster Preparedness and Contingency Planning (ZBPWG). Zoo Animal Health Network. Available at: https://www.yumpu.com/en/document/read/51212560/zoological-best-practices-working-group-planning-roadmap.

Zenda, C. (2020). COVID-19 sees increase in wildlife poaching in Southern Africa. *Fair Planet*, September 28, 2020. Available at: https://www.fairplanet.org/story/covid-19-sees-increase-in-wildlife-poaching-in-southern-africa/.

Zhang, D., Fei, H.-L., Yuan, S.-D., *et al.* (2014). Ranging behavior of eastern hoolock gibbon (*Hoolock leuconedys*) in a northern montane forest in Gaoligongshan, Yunnan, China. *Primates*, **55**(2), 239–47. DOI: 10.1007/s10329-013-0394-y.

Zhang, F. and Zhu, L. (2019). Enhancing corporate sustainable development: stakeholder pressures, organizational learning, and green innovation. *Business Strategy and the Environment*, **28**(6), 1012–26. DOI: 10.1002/bse.2298.

Zhang, L., Ameca, E.I., Cowlishaw, G., *et al.* (2019). Global assessment of primate vulnerability to extreme climatic events. *Nature Climate Change*, **9**(7), 554–61. DOI: 10.1038/s41558-019-0508-7.

Zheng, L., Shen, C., Tang, L., *et al.* (2013). Data mining meets the needs of disaster information management. *IEEE Transactions on Human–Machine Systems*, **43**(5), 451–64. DOI: 10.1109/THMS.2013.2281762.

Zhou, J., Wei, F., Li, M., Pui Lok, C.B. and Wang, D. (2008). Reproductive characters and mating behaviour of wild *Nomascus hainanus*. *International Journal of Primatology*, **29**(4), 1037–46. DOI: 10.1007/s10764-008-9272-7.

Zhu, P., Garber, P.A., Wang, L., *et al.* (2020). Comprehensive knowledge of reservoir hosts is key to mitigating future pandemics. *The Innovation*, **1**(3), 100065. DOI: 10.1016/j.xinn.2020.100065.

Zimmerman, D.M., Mitchell, S.L., Wolf, T.M., *et al.* (2022). Great ape health watch: enhancing surveillance for emerging infectious diseases in great apes. *American Journal of Primatology*, **84**(4–5), e23379. DOI: 10.1002/ajp.23379.

Zimmermann, F., Köhler, S.M., Nowak, K., *et al.* (2017). Low antibody prevalence against *Bacillus cereus* biovar *anthracis* in Taï National Park, Côte d'Ivoire, indicates high rate of lethal infections in wildlife. *PLoS Neglected Tropical Diseases*, **11**(9), e0005960. DOI: 10.1371/journal.pntd.0005960.

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Zimmermann, N., Pirovino, M., Zingg, R., *et al.* (2011). Upper respiratory tract disease in captive orangutans (*Pongo* sp.): prevalence in 20 European zoos and predisposing factors. *Journal of Medical Primatology*, **40**(6), 365–75. DOI: 10.1111/j.1600-0684.2011.00490.x.

Zinsstag, J., Schelling, E., Waltner-Toews, D. and Tanner, M. (2011). From "one medicine" to "one health" and systemic approaches to health and well-being. *Preventive Veterinary Medicine*, **101**(3), 148–56. DOI: 10.1016/j.prevetmed.2010.07.003.

Zommers, Z., Macdonald, D.W., Johnson, P.J. and Gillespie, T.R. (2013). Impact of human activities on chimpanzee ground use and parasitism (*Pan troglodytes*). *Conservation Letters*, **6**(4), 264–73. DOI: 10.1111/j.1755-263X.2012.00288.x.

ZooLeón (n.d.). *Mapa Zoologico de Léon.* Léon, Mexico: ZooLeón. Available at: http://www.zooleon.org.mx/mapa-zoologico-de-leon/. Accessed: December, 2020.

Zoological Society of Milwaukie (n.d.). *Bonobo Species Survival Plan.* Milwaukee, WI: Zoological Society of Milwaukie. Available at: https://www.zoosociety.org/Conservation/BonoboSSP.php. Accessed: October, 2020.

Zoológico de Culiacán (2020). Zoológico de Culiacán Zoo. *Facebook Post*, November 7, 2020. Available at: https://www.facebook.com/zoologicoculiacan/posts/pfbid0s9SV9rjNq33FMmQ37hjNK89qYHraKxpU6xrNKLdN727TNGhauB6FSpvKxiy470M5l.

ZSL (2016). *Boîte à outils pour la prise en compte de la faune dans les forêts de production du bassin du Congo.* London, UK: Zoological Society of London (ZSL). Available at: https://www.zsl.org/sites/default/files/media/2016-10/Toolkit%20Report-v6-2-screen-LR_0.pdf.

ZSL (n.d.). *Wildlife Wood Project.* London, UK: Zoological Society of London (ZSL). Available at: https://www.zsl.org/conservation/regions/africa/wildlife-wood-project. Accessed: October, 2019.

Zulfikri, M., Ridwan, Y. and Cahyaningsih, U. (2018). Prevalence of intestinal helminth parasites in wild and soft-release Bornean orangutan (*Pongo pygmaeus*) in Lamandau Wildlife reserve, Central Kalimantan. *IOP Conference Series: Materials Science and Engineering*, **434**(1), 012135. DOI: 10.1088/1757-899X/434/1/012135.

Zumla, A., Valdoleiros, S.R., Haider, N., *et al.* (2022). Monkeypox outbreaks outside endemic regions: scientific and social priorities. *The Lancet Infectious Diseases*, **22**(7), 929–31. DOI: 10.1016/s1473-3099(22)00354-1.

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