

Just preservation and the Half-Earth View

Commentary on [Treves et al.](#) on *Just Preservation*

Helen Kopnina

Department of International Business
The Hague University of Applied Sciences

Abstract: For interspecies justice, animal welfare, and animal rights, the planet needs to be divided on the basis of species' natural resource requirements. The Half-Earth View is that to maintain viable populations of the Earth's remaining species, half of landscapes and seascapes need protection from intensive economic activity. This protection is needed *outside* the nature preserve system, such as in agricultural areas or cities, so nature can co-exist with local communities.

Keywords: animal rights, anthropocentrism, biological conservation, ecocentrism, Half-Earth View

[Helen Kopnina](#), coordinator, Sustainable Business program, Hague University of Applied Science (HHS), Netherlands, conducts research on environmental sustainability, environmental education and biological conservation. [Website](#)



Treves et al. (2019) write that “authentically non-anthropocentric worldviews that incorporate multispecies justice are needed for a legitimate, deliberative, and truly democratic process of adjudication between competing interests”. If ecojustice (Baxter 2005), ecodeмокracy (Gray and Curry 2010), animal welfare and animal rights (Singer 1977; Regan 1986) are to be taken seriously, the planet needs to be divided on the basis of species' natural resource requirements or bio-proportionality (Mathews 2016) rather than just what one species (*Homo sapiens*) claims it is entitled to (Piccolo et al. 2018; Washington et al. 2018). As humans turn entire habitats into their own domain, they are excluding billions of nonhumans from moral consideration (Soulé and Wilcox 1980). Reserving some areas for the exclusive use of nonhuman species and sharing the areas already dominated by humans is consistent with deep ecology (Naess 1973), animal rights law (Borràs 2016), and nature rights law (Chapron et al. 2019). This commentary accordingly focuses on this Half-Earth View (H-EV).

To maintain viable species' populations, around 50% of landscapes and seascapes need protection from intensive human economic activity. H-EV is championed by conservation biologists and social scientists, including Noss and Cooperrider (1994), Olson et al. (2001), Wilson (2006), Kopnina (2016), Cafaro et al. (2017), Dinerstein et al. (2017), and Kopnina et al. (2018).

Treves et al. note in connection with “soft anthropocentrism” that some social scientists have warned there is little research on the social and economic costs of H-EV (Fletcher and Büscher 2016). Schleicher et al. (2019) point out that the impacts of protected areas vary widely, “from physical and economic displacement to positive socio-economic outcomes for well-being or industry”. Schleicher et al. estimate the number of humans affected and reflect on how human needs and justice should be considered, with millions of

people potentially disadvantaged by H-EV. These criticisms are directed particularly against strict conservation policies that seem to disadvantage local communities. But it is not only the social and economic impacts of H-EV on humans that matter; the survival of billions of individuals of other species needs be given weight too (Crist and Kopnina 2014; Piccolo et al. 2018; Washington et al. 2018).

In support of strict protection. It is doubtful that a viable human population of the present size can be sustained on a severely degraded earth, even in the short-term. Climate change, biodiversity loss (IPBES 2019) and rapidly declining environmental indicators (Steffen et al. 2015) are problems for both present and future generations, human and nonhuman.

Extinction of species reduces the evolutionary potential of the Earth's living beings: "Death is one thing – an end to birth is something else" (Soulé and Wilcox 1980). Biological extinction can be seen as a kind of "super-killing" (Rolston 2012) that negates the rights of nature (Chapron et al. 2019). Some early humans were "part of nature", in balance with the nonhuman inhabitants of their shared habitats, without a measurable negative effect on biodiversity (Sponsel 2013). But early humans were already playing an important role in shaping ecosystems in pre-industrial times (Turner 1993; Barnosky et al. 2004), including human-caused extinctions (Burney and Flannery 2005).

The romantic idea of pre-industrial peoples living in harmony with nature is suspect (Koot 2016). Some indigenous people might have evolved and subsisted without immediately endangering their environments; but human territorial expansion, extractive activities (Holt et al. 2004) and modern hunting weapons (Jerozolinski and Peres 2003) radically altered this relationship (Shoreman-Ouimet and Kopnina 2016). Traditional swidden ("slash and burn" farming is hardly an environmentally benign practice (Henley 2011). When cleared, tropical forest soils' nutrient-holding capacity is limited due to erosion of the thin layer of fertile topsoil, making it very difficult for vegetation to reestablish itself afterward and rendering the land more vulnerable to fires (Alexander et al. 2011). Hence whatever grows back after clearing is likely to be an altered system with reduced ecosystem function and resilience. As for traditional hunting practices, their "sustainability" in a natural system kept in balance by apex predators depends on the number of hunters. In simple biological terms, having eight billion relatively large apex predators cannot be "balanced" with the availability of "bushmeat" (Peterson 2012) without intensified agricultural production and the associated maltreatment of animals used for consumption or medical experimentation and entertainment (Kopnina and Gjerris 2005).

Human-centered critics ignore the fact that there is a growing imbalance between the growing population of a single species – humans – and all other (wild) species (Kopnina and Gjerris 2005). Treves et al. point out that the current trends in the loss of nonhuman life "include massive declines in wilderness areas". The highest concentrations of biodiversity are found in areas with the highest rates of human population growth (Cincotta et al. 2000). Low-consumption lifestyles are less harmful to the environment, but per capita human consumption has a significant effect on biodiversity (Crist et al. 2017). The global destructive reach of the large landowners and corporations is certainly profound; but deforestation by local people for subsistence agriculture and fuel, or hunting for "bushmeat", is also substantial, giving rise to the "empty forest syndrome" (Crist and Cafaro 2012). Species need to be protected *beyond* designated preservation zones.

Strategies for multispecies coexistence accordingly need to be extended to areas dominated by humans. There needs to be sharing in agricultural lands through regenerative

agriculture (Rhodes 2017), retaining at least some biodiversity hotspots and corridors next to growing crops, and roads protecting roadside vegetation. Cities too could accommodate more biodiversity (Yigitcanlar et al. 2019) through cradle-to-cradle designs (Braungart et al. 2007). The objective is not to displace or disadvantage local communities but to coexist with them.

References

- Alexander, S., Nelson, C.R., Aronson, J., Lamb, D., Cliquet, A., Erwin, K.L., Finlayson, C.M., de Groot, R.S., Harris, J.A., Higgs, E.S., Hobbs, R.J., Lewis III, R.R.R., Martinez, D., & Murcia, C. 2011. Opportunities and challenges for ecological restoration within REDD+. *Restoration Ecology*, 19(6):683–689.
- Barnosky, A.D., Koch, P., Feranec, R., & Wing, S. 2004. Assessing the causes of late Pleistocene extinctions on the continents. *Science*, 306:70-75.
- Baxter, B. 2005. *A theory of ecological justice*. New York: Routledge.
- Borràs, S. 2016. New transitions from human rights to the environment to the rights of nature. *Transnational Environmental Law*, 5(1):113-143.
- Braungart, M., McDonough, W., & Bollinger, A. 2007. Cradle-to-cradle design: Creating healthy emissions—a strategy for eco-effective product and system design. *Journal of Cleaner Production*, 15(13-14):1337-1348.
- Burney, D.A., & Flannery, T.F. 2005. Fifty millennia of catastrophic extinctions after human contact. *Trends in Ecology & Evolution*, 20(7):395-401.
- Cafaro, P., Butler, T., Crist, E., Cryer, P., Dinerstein, E., Kopnina, H., Noss, R., Piccolo, J., Taylor, B., Vynne, C., & Washington, H. 2017. If we want a whole earth, nature needs half. A reply to “Half-earth or whole earth? Radical ideas for conservation, and their implications”. *Oryx—The International Journal of Conservation*, 53(1):400.
- Chapron, G., Epstein, Y., & López-Bao, J.V. 2019. A rights revolution for nature. *Science*, 363(6434):1392-1393.
- Cincotta, R.P., Wisniewski, J., & Engelman, R. 2000. Human population in the biodiversity hotspots. *Nature*, 404(6781):990.
- Crist, E., & Cafaro, P. 2012. Human population growth as if the rest of life mattered. In P. Cafaro and E. Crist (eds.), *Life on the brink: Environmentalists confront overpopulation*. Athens: University of Georgia Press. pp. 3–15.
- Crist, E., & Kopnina, H. 2014. Unsettling anthropocentrism. *Dialectical Anthropology*, 38:387-396.
- Crist, E., Mora, C., & Engelman, R. 2017. The interaction of human population, food production, and biodiversity protection. *Science* 356(6335): 260-264.
- Dinerstein, E., Olson, D., Joshi, A., Vynne, C., Burgess, N. D., Wikramanayake, E., Hahn, N. et al. 2017. An ecoregion-based approach to protecting half the terrestrial realm. *BioScience*, 67(6):534-545.
- Fletcher, R., & Büscher, B. 2016. [Why E. O. Wilson is wrong about how to save the Earth](#).
- Gray, J., & Curry, P. 2020. ‘Representation for nature’: Ecodemocratic decision-making as a practical means of integrating ecological and social justice. In H. Kopnina and H. Washington (eds.), *Conservation: Integrating social and ecological justice*. Heidelberg: Springer. pp. 155-166.
- Henley, D. 2011. Swidden farming as an agent of environmental change: Ecological myth and historical reality in Indonesia. *Environment and History*, 17:525-554.

- Holt, F.L., Bilborrow, R.E., & Oña, A.I. 2004. Demography, household economics, and land and resource use of five indigenous populations in the Northern Ecuadorian Amazon: A summary of ethnographic research. *Occasional Paper, Carolina Population Center*. Chapel Hill, NC: University of North Carolina.
- IPBES (Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services). 2019. [Nature's dangerous decline 'unprecedented'; Species extinction rates 'accelerating'](#).
- Jerozolinski, A., & Peres, C.A. 2003. Bringing home the biggest bacon: A cross-site analysis of the structure of hunter-kill profiles in Neotropical forests. *Biological Conservation*, 111(3):415-425.
- Koot, S. 2016. Cultural ecotourism as indigenous modernity: Namibian Bushmen and two contradictions of capitalism. In H. Kopnina and E. Shoreman-Ouimet (eds.), *Handbook of environmental anthropology*. New York: Routledge. pp. 315-326.
- Kopnina, H. 2016. Half the earth for people (or more)? Addressing ethical questions in conservation. *Biological Conservation*, 203:176-185.
- Kopnina, H., & Gjerris, M. 2015. Are some animals more equal than others? Animal rights and deep ecology in environmental education. *Canadian Journal of Environmental Education*, 20:108-123.
- Kopnina, H., Washington, H., Gray, J., & Taylor, B. 2018. The 'future of conservation' debate: Defending ecocentrism and nature needs half movement. *Biological Conservation*, 217(2018): 140-148.
- Mathews, F. 2016. From biodiversity-based conservation to an ethic of bio-proportionality. *Biological Conservation*, 200:140-148.
- Naess, A. 1973. The shallow and the deep: Long-range ecology movement. A summary. *Inquiry*, 16:95-99.
- Noss, R., & Cooperrider, A. 1994. *Saving nature's legacy: Protecting and restoring biodiversity*. Washington, DC: Island Press.
- Olson, D.M., Dinerstein, E., Wikramanayake, E.D., Burgess, N.D., Powell, G.V.N., Underwood, E.C., D'amico, J.A. et al. 2001. Terrestrial ecoregions of the world: A new map of life on earth: A new global map of terrestrial ecoregions provides an innovative tool for conserving biodiversity. *BioScience*, 51(11):933-938.
- Peterson, D. 2012. Talking about bushmeat. In M. Bekoff (ed.), *Ignoring nature no more: The case for compassionate conservation*. Chicago: Chicago University Press. pp. 64-76.
- Piccolo, J., Washington, H., Kopnina, H., & Taylor, B. 2018. Back to the future: Why conservation biologists should re-embrace their ecocentric roots. *Conservation Biology*, 32(4):959-961.
- Regan, T. 1986. A case for animal rights. In M.W. Fox and L.D. Mickley (eds.), *Advances in animal welfare science*. Washington, DC: The Humane Society of the United States. pp. 179-189.
- Rhodes, C.J. 2017. The imperative for regenerative agriculture. *Science Progress*, 100(1), 80-129.
- Rolston, H. 2012. *A new environmental ethics: The next millennium for life on earth*. London: Routledge.
- Schleicher, J., Zaehring, J.G., Fastré, C., Vira, B., Visconti, P., & Sandbrook, C. 2019. Protecting half of the planet could directly affect over one billion people. *Nature Sustainability* 2: 1094-1096.

- Shoreman-Ouimet, E., & Kopnina, H. 2016. *Culture and conservation: Beyond anthropocentrism*. New York: Routledge.
- Singer, P. 1977. *Animal liberation: A new ethics for our treatment of animals*. New York: Random House.
- Soulé, M.E., & Wilcox, B.A. 1980. Conservation biology: Its scope and its challenge. In M. Soulé and B. Wilcox (eds.), *Conservation biology: An evolutionary-ecological perspective*. Sunderland, MA: Sinauer. pp. 1-8.
- Sponsel, L.E. 2013. Human impact on biodiversity, overview. *Encyclopedia of Biodiversity*, 4:137-152.
- Steffen, W., Richardson, K., Rockström, J., Cornell, S.E., Fetzer, I., Bennett, E.M., Biggs, R., Carpenter, S.R., De Vries, W., De Wit, C.A., & Folke, C. 2015. Planetary boundaries: Guiding human development on a changing planet. *Science*, 347(6223):1259855.
- Treves, A., Santiago-Ávila, F.J., & Lynn, W.S. 2019. [Just preservation](#). *Animal Sentience* 27(1).
- Turner, T. 1993. The role of indigenous peoples in the environmental crisis: The example of the Kayapo of the Brazilian Amazon. *Perspectives in Biology and Medicine*, 36(3):526-545.
- Washington, H., Piccolo, J., Chapron, G., Gray, J., Kopnina, H., & Curry, P. 2018. Foregrounding ecojustice in conservation. *Biological Conservation*, 228:367-374.
- Wilson, E.O. 2016. *Half-earth: Our planet's fight for life*. WW Norton & Company.
- Yigitcanlar, T., Foth, M., & Kamruzzaman, M. 2019. Towards post-anthropocentric cities: Reconceptualizing smart cities to evade urban ecocide. *Journal of Urban Technology*, 26(2):147-152.

The Foundations of Animal Sentience project (ASENT), a five-year ERC-funded project led by Dr. Jonathan Birch, aims to study the methodological foundations of animal sentience research and the link between sentience and animal welfare. The project seeks to recruit **one PhD student**. The student will contribute to the project either by exploring the methodological foundations of animal sentience research, or by investigating the pathway from animal sentience research to consequences for animal welfare legislation and policy and/or animal ethics.

The student, at the time of starting the PhD, should have an excellent undergraduate degree and a completed Masters degree in philosophy or another relevant subject, such as comparative psychology, cognitive science, or animal welfare science. The primary supervisor of the PhD project will be Dr. Jonathan Birch. If you have any questions or want to know more about the project, please write to Jonathan at j.birch2@lse.ac.uk.

The successful applicant will receive full funding for a **4-year PhD at the LSE**, including full payment of tuition fees AND a **maintenance stipend of £18,000 per annum**. To apply, please apply to the MPhil/PhD in Philosophy at the LSE in the usual way, carefully following all the requirements described on the LSE's website: <http://www.lse.ac.uk/study-at-lse/Graduate/Degree-programmes-2020/MPhilPhD-Philosophy>. When you apply, please indicate clearly in your application (in both your Statement of Academic Purpose AND your Research Proposal) that you wish to be considered for the ASENT scholarship.

You should include, in your research proposal, a **substantial description (of at least 1,500 words) of a research project relevant to ASENT**. You MAY, if you wish, include TWO research proposals in the same document: a proposal relevant to ASENT, and a proposal on a different subject that you would pursue if awarded an LSE Studentship or a LAHP (AHRC) scholarship. If you do this, please indicate clearly which of the two proposals is relevant to ASENT.

CLOSING DATE: 24 JANUARY 2020.

It is expected that interviews will be conducted in late January or in February.

www.lse.ac.uk/philosophy/asent-scholarship/