EDITORIAL: EXTINCTION OF EXPERIENCE: ONE STEP FOR PREVENTION.

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Bio: Margaret Kinnaird worked for the Wildlife Conservation Society from 1991 to 2015 and led WWF-International's Wildlife Practice from 2016 to 2024. She has authored 2 books, over 150 scientific and popular articles. She serves on the boards of Save the Rhino, Inc. and Wildlife Direct and is a member of the IUCN World Commission on Protected Areas.

When I was a Master's student, I spent months isolated on an island in the Galapagos studying the behaviour of an endemic mockingbird. Later, for my PhD, I spent several years in the riverine forests of eastern Kenya studying the demography of a rare primate. My ecologist colleagues at the time were tagging penguins in Peru, catching frogs in Costa Rica or slogging through flooded forests of Venezuela and Brazil after monkeys. Some of us were in foreign lands, some in our own countries – but we all stayed for extended periods without leaving our field sites. We made cool discoveries, added to the collective knowledge of natural history and in many cases, provided insights into the management of the areas where we studied.

This sort of time commitment to studying the natural world is increasingly an outlier. And it's not just biologists who are spending less time in nature, this is true across multiple field-based disciplines and perhaps most disconcertingly, in school rooms across the globe, particularly in the global south. I think it's a trend we need to be concerned about.

That's why I was struck by a recent blog in Mongabay by Rhett Butler where he reflects on the 'extinction of experience', a concept put forward decades ago by lepidopterist Robert M. Pyle and expounded upon by Masashi Soga and Kevin J. Gaston in 2016. It refers to our declining interaction with nature - from backyard explorations of children to ecologists and protected area managers. The essence of the concept is that the more we are estranged from nature, the less we will know or care about its disappearance. This creates a feedback loop that accelerates biodiversity loss.

Soga and Gaston put forward all sorts of reasons for this trend – which has only deepened in the past 10 years. Field expeditions are expensive and funding is increasingly tight and limited. Many researchers are raising families making long expeditions difficult, and some are concerned with reducing the carbon footprint of long-haul flights. Schools, especially urban ones, struggle to find nearby natural places to take children. Even schools on the periphery of protected areas struggle to find the resources (entrance fees and transport) for their pupils to enjoy nature.

Plus, we now have lots of technology at our fingertips - drones, DNA sampling, camera traps, remote-sensing technology, and increasingly AI - that reduce or eliminate time needed in the wild. The technologies are non-invasive, allow us to analyse vast data sets and acquire deeper insights than were ever possible before. These are good things and I've heartily embraced and promoted a number of these approaches among my own students.

But at the same time, these technologies distance us from the very places we need to understand. In his blog, Butler underscores Soga and Gaston's call for balance. Embrace the technology but don't risk the loss of on-the-ground ecological discovery. Without this balance, we'll never break the feedback loop that drives biodiversity loss.

I believe that one of the best ways to interrupt this feedback loop is by making our parks and protected areas more available to the public – especially children in the surrounding communities that have looked at intimidating boundary signs and fence posts for years while wondering what was inside. Allowing youth to exercise their curiosity and acquire a sense of wonder for nature is vital for fostering future environmental

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Children learning at the Wildlife Direct Field Camp, Nairobi, Kenya © Wildlife Direct

stewards. As Arvind Kumar (2023) of IUCN's Commission on Environmental, Economic and Social Policy (CEESP) writes:

In today's world, young people's contribution is significant in combating climate change as they bring unique perspectives and innovative ideas. Their inclusion, particularly in policy-making, brings a much-needed long-term perspective that is often overlooked. They can also play a crucial role in promoting policies that consider the interests of future generations, thus ensuring that development objectives are aligned with environmental sustainability. Additionally, they can act as essential watchdogs, scrutinizing government activities, ensuring they meet their environmental commitments, and pushing for enhanced transparency and inclusivity. On the action side, youths are in a unique position to drive tangible changes at the grassroots level. Their familiarity with technology helps them to leverage digital tools in taking initiatives, running environmental campaigns, and monitoring of local ecosystems. They can also play a vital role in engaging the community, and nurturing a collective sense of responsibility towards nature conservation.

A number of local and national NGOs are working hard to engage youth through field labs, internships and various training opportunities. The looks of wonder and amazement that I've seen on the faces of children visiting these field sites are as heart-warming as they are encouraging. However, all these educational efforts face the usual challenges - limited finances, high park or conservancy fees, or policies that lack inclusion. We desperately need to reduce these challenges, especially in the global south. Opening the gates and providing free access to our parks and protected areas to youth and education groups would be an excellent first step. Large international NGOs, governments and businesses should provide more financial support for resourcing field labs, purchasing equipment and yes, investing in technology. And let's not forget the need for university and post-graduate level research support – some of these children will be the next generation of ecologists heading into the field and, hopefully, staying for an extended period of time.

Caring begins with experience; let's not let it go the way of the dodo.

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