



GUEST EDITORIAL: RECOGNISING THE BENEFITS OF PROTECTED AND CONSERVED AREAS FOR NATURE AND PEOPLE

John G. Robinson

Senior Conservationist Emeritus, Wildlife Conservation Society

Bio: John G. Robinson directed the Wildlife Conservation Society's conservation programs from 1990 to 2020. He has over 200 publications, including co-editing "Protected Areas. Are they safeguarding biodiversity?" (2016). He served as Vice President of the IUCN Council, and Councilor for North America and the Caribbean from 2012 to 2021.

Area-based conservation, through the establishment and management of protected areas, has been the cornerstone of modern conservation, but its importance is insufficiently recognised by politicians and policymakers.

Area-based conservation was highlighted at IUCN's First World Congress on National Parks in 1962, and promoted as a core conservation strategy at the 3rd World Parks Congress in 1982. While a diversity of management goals and authorities characterised protected areas (Dudley et al., 2010), generally these areas were legally established by governmental authorities for the "protection and maintenance of biological diversity" (IUCN, 1994), or the "conservation of nature" (Dudley & Stolton, 2008).

The ambition of area-based conservation expanded dramatically with the adoption of the Global Biodiversity Framework (CBD, 2020). Area-based conservation would now include both protected areas (generally understood to include the IUCN categories) but also other conserved areas, specifically "other effective area-based conservation measures" or OECMs. While all areas should demonstrably deliver on biodiversity outcomes, OECMs in particular also deliver on social goals, and include consideration of equity, rights and the distribution of costs and benefits.

The social implications of the expanded framework are explored in this issue of *PARKS* by Fajardo et al. and identify the critical role played by Indigenous peoples and local communities in managing and restoring conserved areas. Ongoing work by IUCN's World Commission on Protected Areas (WCPA) seeks to define and categorise OECMs (IUCN, 2019). Not all areas that have the potential to be recognised as OECMs will be formally recognised as such. Inclusion of these conserved

areas in, for example, national targets and global goals will often require that local customs are followed, and formal designations will need to be approved by relevant local actors, including Indigenous peoples. Nevertheless, area-based conservation efforts will include the traditional national parks but increasingly will extend to a huge range of categories of managed and conserved areas: nature reserves, sustainable development reserves, extractive reserves, community-based areas, Indigenous reserves, marine protected areas, *tabu* areas, and private reserves – to name just a few.

A common feature of all of these protected and conserved areas (increasingly referred to as PCAs) is that they have high ecological integrity. In common parlance, ecological integrity refers to how close a socio-ecological system is to its 'natural' state. However, most systems do not exhibit a single natural condition, and the dynamic nature of ecosystems arises in part from the interaction with human social systems, with all their different management and governance structures, cultural values and economic activities, as discussed by Rao et al in this issue. Ecological systems with high integrity are those whose structure, composition and functioning occur within the natural range of variation.

Where PCAs are aggregated together, effectively increasing the size and compactness, and decreasing the fragmentation of natural areas, and where they are physically or ecologically connected, this tends to create larger areas of high ecological integrity. The importance of area networks and ecological connectivity is explored by Laur et al. in this issue. Scaling up area-based conservation is increasingly a strategy to enhance the ecological integrity of natural areas (Robinson et al., 2024).

Areas of high ecological integrity maintained by PCAs contribute to a wide range of ecological services (Watson et al., 2018). Such areas tend to both store and sequester more carbon than degraded areas, and thus contribute to climate change mitigation. By buffering people from extreme climate events, and by providing opportunities for people to develop alternatives, they allow people to adapt to changing conditions. Dudley, in this issue, examines how such areas contribute to climate mitigation and adaptation. Such areas also tend to have more faunal complexity, and the contribution of wildlife species to ecosystem services, particularly those related to climate change, has been well described (Timmins et al., 2024). In this issue, Timmins et al. examine wildlife's contribution to maintaining many ecological services. Areas with high ecological integrity disproportionately contribute to regulation and supply of freshwater and other hydrological services. Moberg et al., this issue focus on rivers, and their contribution to biodiversity conservation and the benefits they provide to people. Dobson focuses on the primacy of water, and argues that this benefit has a compelling, political value – more on that later. Areas of high ecological integrity are critical for biodiversity conservation, including avoiding species extinction, and maintaining community structure and composition (Betts et al., 2017). The contribution of PCAs to maintaining ecological integrity to reduce infectious disease risks and mitigate disease spillovers from wild species was repeatedly pointed out during the COVID-19 pandemic (Hockings et al., 2020). And natural areas with high ecological integrity are critical to the livelihoods and cultures of people who depend on the natural world, including Indigenous peoples (Adrachuk et al, this issue; Fa et al., 2020; Ng & Tan, this issue).

The rationale for establishing and maintaining PCAs as a mechanism to maintain ecological integrity, and the value of ecological integrity for a plethora of ecological services, are self-evident to most conservationists. And indeed, over the last 75 years there has been steady progress in establishing new internationally recognised protected and conserved areas. Nevertheless, the rate of growth in the number of such areas has been declining since the end of the last century, and political support for the establishment and maintenance of PCAs is waning in some quarters. Mascia and Pailler (2010) first described the phenomenon of “protected area downgrading, downsizing, and degazettement” (PADDD), and in recent years there have been concerns of a retreat from a number of promising conservation approaches (e.g. community-based natural resource management, payments for ecosystem services, eco-certification).

Government funding and support for PCAs increasingly are under threat. The United States historically has been an international leader in conservation, with bipartisan support for national parks and international initiatives. Under the present US administration however, support for the National Park Service, and for National Parks in general, has been significantly reduced (Schneid, 2025). The administration's abolition of USAID has had a dramatic impact on funding for conservation globally, including support for area-based conservation initiatives (Welz, 2025). This is having knock-on effects on the support for national and international conservation in the budgets of other national agencies. All of this is in the context of a steady erosion of natural areas in many parts of the world, a phenomenon termed ‘ecocide’ and described in this issue by Rallings and Caro.

The contradiction between the evident value of PCAs and the diminishment of their political and funding support, raises the question of what conservationists should do to address the issue. One answer is provided by Dobson in this issue of *PARKS*. He notes that ecological services like biodiversity conservation and mitigating climate change are abstract and not easily understood or quantified by political decision-makers. Politicians are focused on the short-term benefits which are relevant to their electorate. Dobson thus urges a focus on very tangible benefits provided by PCAs, such as the continuous supply of fresh, clean water, and argues that people, if they recognise the link to their own self-interest, are more likely to become advocates for such a benefit. One example is provided by Ng and Tan in this issue: community managers of protected areas in Malaysia cited their importance for maintaining cultural heritage. Similarly, a powerful argument for urban parks is that they allow people to directly appreciate the benefits of nature, as noted in this issue by Figueroa and Gray.

The broader point is that the arguments for area-based conservation are likely to be more successful when they are tangible and directly appeal to the general public. An instructive example might be provided by the US National Park Service (NPS). The initial budget reductions and layoffs occasioned by the Department of Government Efficiency at the beginning of the Trump administration, resulted in the Service losing 24 per cent of its full-time staff. Yet push back from the public, advocacy groups and resistance within Congress seem to be holding the budget level for 2026 – despite requests from the administration for very

significant additional cuts. Time will tell, but the initial outlook is more promising than it initially appeared.

PCAs are arguably the most effective mechanism to maintain large-scale ecological integrity. Ecological integrity in turn is essential for the maintenance of a wide range of ecosystem services, many of which provide direct social and economic benefits to people. To the extent that conservationists can mobilise those people to recognise their self-interest and influence public opinion and political decision-making, the more we can build the case for the support of area-based conservation.

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