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Perspective

A framework for identifying paper parks

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ABSTRACT

The term ‘paper park’ is widely used to label protected areas that only exist ‘on paper’. Identifying and rectifying paper parks could be critical for producing ‘effectively conserved and managed [...] systems of protected areas’, a core component of Kunming-Montreal Global Biodiversity Framework Target 3. However, the term is not well defined and often applied to cases more accurately described as protected areas with low management effectiveness. This inconsistency is problematic because sites where management interventions are entirely absent (true paper parks) fundamentally differ from those where management is insufficient or poorly executed (ineffective management). These fundamental differences include how paper parks are conceptualised and monitored, and the interventions required to tackle them. To address this, here we propose a new paper park definition as “a site that has been legally or otherwise designated as a protected area, but where management interventions have been absent for at least 5 years”. We present a decision tree to identify paper parks and discuss how they differ from other types of conservation area. We suggest addressing the problem by measuring the extent of paper parks, investigating the causes of absent management, and prioritising investment to implement effective interventions. Without such work, there is a risk that Target 3 will perversely incentivise the creation of more paper parks.

1. Introduction

Protected areas (PAs) have long been a major component of national and international efforts to conserve nature (Woodley et al., 2019). Under Target 3 of the Kunming-Montreal Global Biodiversity Framework (GBF, CBD, 2022), 196 Parties agreed to expand the global network of PAs and other effective area-based conservation measures (OECMs) to cover at least 30% of terrestrial areas, inland waters, and marine areas. The level of ambition this target represents has increased significantly in recent decades, with the previous target, Aichi Biodiversity Target 11 of the Strategic Plan for Biodiversity 2011–2020 (CBD,

2010), calling for coverage of at least 17% of terrestrial and inland water areas, and 10% of coastal and marine areas. An expansion to 30% could have large biodiversity-derived benefits for nature and people (Reining et al., 2021) but only if current and future PAs are well designed, equitably governed, effectively conserved and managed, and adequately resourced (Coad et al., 2019). Unless there is sufficient focus on PA quality, global biodiversity will continue to decline (Geldmann et al., 2013; Kuempel et al., 2018), irrespective of increases in PA coverage (Coad et al., 2019; Maxwell et al., 2020). This is acknowledged in the wording of GBF Target 3, which has multiple elements relating to the quality and effectiveness of PAs and OECMs.

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One term often used when discussing PA quality or effectiveness is ‘paper parks’, based on the idea that some PAs only exist ‘on paper’. Paper parks are seen as a serious conservation problem (Di Minin and Toivonen, 2015; Dudley et al., 2022), reflecting a wider phenomenon of ‘conservation abandonment’ (Pienkowski et al., 2025). However, the term has been used inconsistently to describe a range of problems, including: PAs permitting or managed for objectives other than biodiversity (Relano and Pauly, 2023); PAs not delivering on their stated goal of conservation, especially in the face of severe habitat loss or degradation (Di Cintio et al., 2023; Greve and Svenning, 2011; Martin and Blackburn, 2009); PAs established without proper planning, resources, and governance (Blackman et al., 2015; Rife et al., 2013); sites with non-compliance with conservation rules (Pieraccini et al., 2017); and PAs that lack adequate management (Bonham et al., 2008; Guidetti et al., 2008; Perry et al., 2020; Slezak, 2014). These examples reveal an inexact conceptualisation of paper parks, as reflected in the sole existing definition, which broadly covers poor performance: “a legally established protected area where experts believe current protection activities are insufficient to halt degradation” (Dudley and Stolton, 1999). A limitation of this early definition is that it requires subjective decisions about when, along continuums of management effectiveness and biodiversity degradation, a PA qualifies as a paper park.

A more precise definition of paper parks is needed for three reasons. First, definitional ambiguity creates uncertainty about whether paper parks are, or should be, included in conservation area coverage statistics, including indicators of progress against GBF Target 3. Second, the lack of conceptual clarity makes it hard to systematically study the drivers and consequences of paper parks. Third, areas with no management interventions might require fundamentally different solutions from areas with insufficient or poorly executed management, making it essential to distinguish between them (Rodrigues and Cazalis, 2020). Here we take the first step in resolving these issues by proposing a new operational definition of paper parks, building on recent work that describes the stages involved in establishing a PA. We then present a decision tree designed to help identify paper parks and present examples of types of sites that are not paper parks. Finally, we suggest how they might be considered when calculating national and global coverage statistics that track progress towards area-based conservation targets. In doing so, we provide a clearer foundation for identifying and reporting paper parks, enabling targeted research on their drivers and consequences and more effective allocation of conservation resources.

2. What is a paper park?

We define a paper park as “a site that has been legally or otherwise designated as a protected area, but where management interventions have been absent for at least 5 years”.

This definition has four key features. First, PAs must have been “legally or otherwise designated”. Recent research identified four stages of PA establishment: (i) proposed/committed; (ii) designated; (iii) implemented; and (iv) actively managed (Gorud-Colvert et al., 2021, Text Box 1). The process is not always unidirectional, as some PAs move back and forth between stages; some miss a stage entirely (e.g., not all PAs are proposed before being designated); and some cease to be PAs if they are de-gazetted (Mascia and Pailler, 2011). Our definition builds on this framework (Fig. 1), where paper parks are PAs where conservation management is absent, either because it has never been implemented (implementation failure) or because it has been discontinued for a sustained period (active-management failure). This definition captures situations where a PA has implemented necessary management processes in the past, but these have subsequently ceased for multiple possible reasons.

Second, the term “management interventions” refers to the activities, rules and regulations that are applied to an implemented PA. It should be noted that this can include a conscious decision to leave the site alone, other than maintaining a monitoring and vigilance brief to identify the need for interventions (Smith et al., 2019), which is distinct from not initiating necessary management (Text Box 1).

Third, our definition distinguishes clearly between areas where “management interventions have been absent” and those with insufficient or poorly executed management, i.e. poorly performing PAs. While the previous definition conflates them (Dudley and Stolton, 1999), these two categories often arise from different underlying causes, so require distinctly different strategies for monitoring and remediation. For example, poorly performing PAs might occur because of inadequate resourcing or external pressures (discussed more below). This poor performance could be corrected through management reforms, such as leadership changes, targeted funding, and staff training, which may be identified through PA Management Effectiveness (PAME) assessments. In contrast, paper parks arise from an absence of intent or ability to manage at an institutional level, for example, when an area is designated on paper purely to meet internal targets. Consequently, addressing paper parks might require more institutional changes, such as state action to complete legal establishment (e.g., gazettment), designation of a

Box 1

Stages of establishing a protected area (based on Gorud-Colvert et al., 2021).

(i) Proposed/committed.

The intent to create a PA is made public. A PA is announced in some formal (though non-binding) manner via a statement by a government, community, conservation organisation, or other organising group. The PA site is identified. This stage is not a pre-requisite for a site being designated and is sometimes missed entirely. However, once a site has been designated it will not move back to the proposed/committed stage.

(ii) Designated.

A PA is specifically designated through legal or other recognised means. The PA now exists ‘on paper’. A designated PA should have (1) defined boundaries, (2) legal gazetting or equivalent Indigenous/traditional authorisation or customary recognition, and (3) clearly stated goals and plans in place, perhaps through a management plan, to define allowed uses to control impact, and associated regulations or rules.

(iii) Implemented.

A PA transitions from existence on paper to being operational in real terms, with management interventions implemented (e.g., if there is a management plan, it has been activated). Mechanisms to promote compliance and enforcement exist. Plans for regulating PA activities are in place. Stakeholders are engaged; users are aware of regulations; financial and human resource management systems are established; and performance measures are in place.

(iv) Actively managed.

PA management is ongoing, including monitoring, periodic review, and adjustments made as needed to achieve biodiversity conservation and other ecological and social goals. All PA management activities for sustained functioning and achievement of goals continue. PA management will document, monitor, and evaluate PA outcomes.

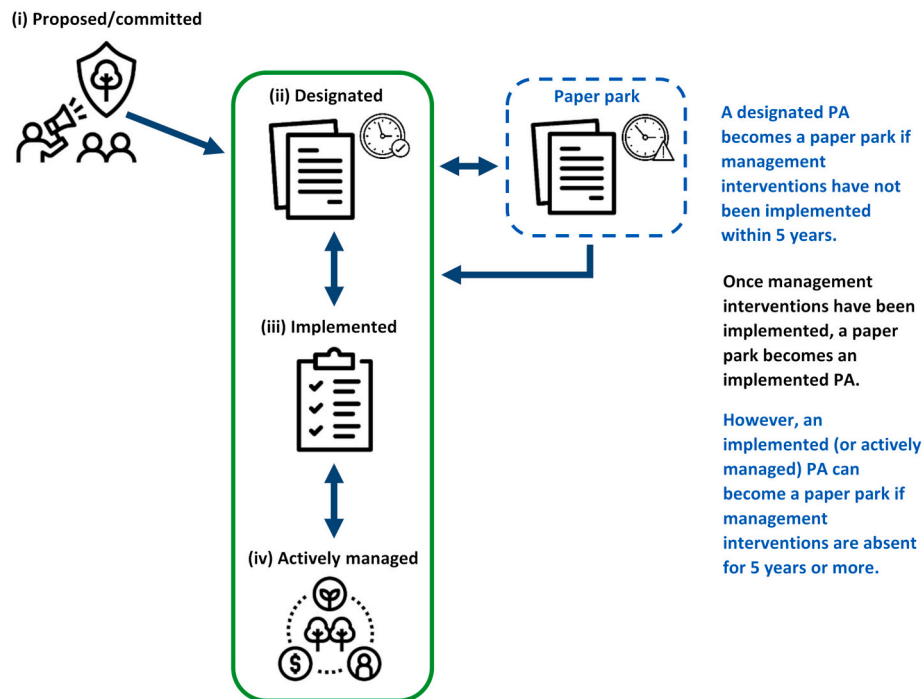


Fig. 1. Stages of establishment adapted from [Gorud-Colvert et al. \(2021\)](#). Once a PA has been designated it may move between the stages of establishment (in the green box), but it will not return to the proposed/committed stage. Once a PA is in one of the green box stages it may or may not be effective in maintaining the values for which it was created. If not, it is classified as a poorly performing PA. However, ‘Paper parks’ (in the blue dashed box) are only found in the designated stage, not in any other stage. (For interpretation of the references to color in this figure legend, the reader is referred to the web version of this article.)

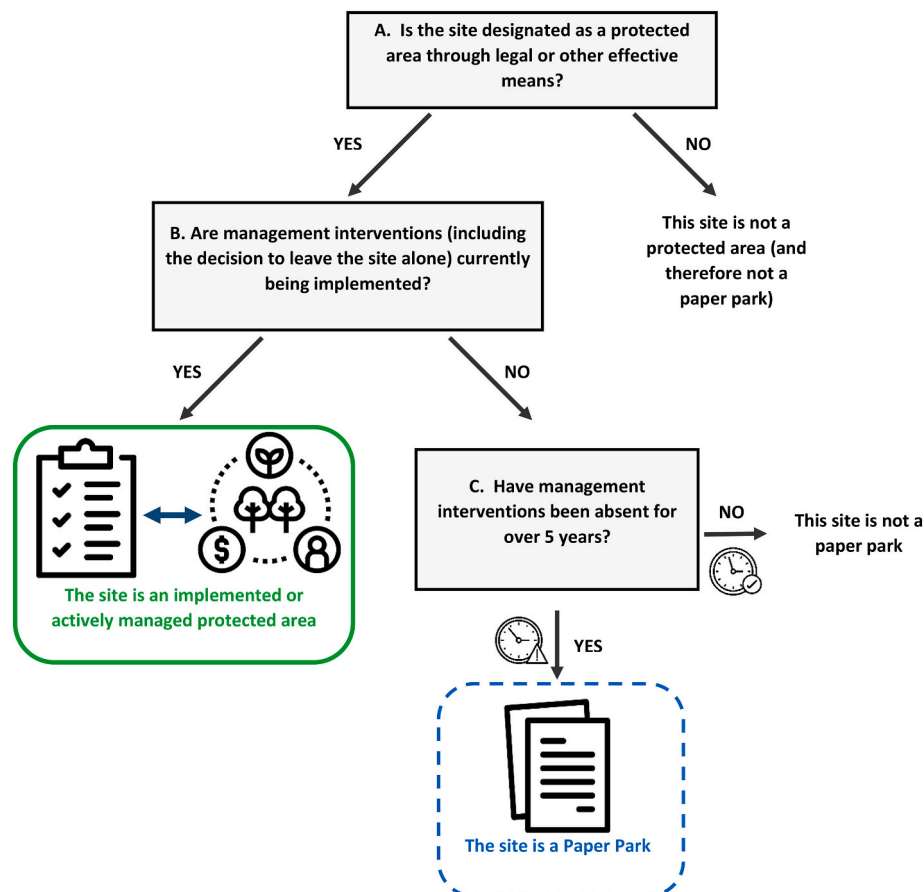


Fig. 2. Paper park decision tree to assess sites against the paper park definition, based on the IUCN definition of a Protected Area ([Dudley, 2008](#)).

competent authority, and allocation of a recurrent budget.

Fourth, we chose a timeframe of “at least 5 years” without active management because it reflects a common period used in PA management planning and is conservative enough to allow for newly designated PAs that need time to set up and implement appropriate management (e.g. Bruner et al., 2001), and to also exclude PAs with temporary shortfalls in resources (e.g. Watson et al., 2014). However, it should be noted that there are few legislative or reporting frameworks on which to base this timeframe, other than the Birds and Habitats Directives that require reporting on implementation every 6 years (European Commission, 2021).

3. When a site is not a paper park

In our definition, a site is a paper park if: (A) it has been designated as a PA; (B) it needs to implement management interventions to meet its objectives, but; (C) management interventions have been absent for 5 years or more. Reflecting this, we provide a decision tree for identifying paper parks (Fig. 2). Equally importantly, the decision tree can help identify when a site is not a paper park and instead falls into one of the categories described in Sections 3.1–3.3.

3.1. Other effective area-based conservation measures

GBF Target 3 (CBD, 2022) recognises that OECMs can play an important role in complementing and connecting PA networks (IUCN-WCPA Task Force on OECMs, 2019; Jonas et al., 2021). The definition of an OECM is “A geographically defined area other than a Protected Area, which is governed and managed in ways that achieve positive and sustained long-term outcomes for the in-situ conservation of biodiversity [...]” (CBD, 2018). This means they are not PAs and so cannot be paper parks.

3.2. Poorly performing protected areas

Poorly performing PAs are a persistent problem (Dudley et al., 2022; Geldmann et al., 2019; Wauchope et al., 2022), but they are not paper parks. This is because they have been designated and have implemented management interventions, albeit to an insufficient level. The fact that the management interventions are inadequate can be due to a wide range of reasons. Low management effectiveness is likely to play an important role, as can poor PA network planning and design (Geldmann et al., 2018; Rodrigues and Cazalis, 2020) and a lack of good governance. These problems may also be exacerbated by factors outside the PA management authority's control, such as climate change, pollution, or civil unrest (Watson et al., 2014). However, based on our definition, it is only after all management interventions are absent for at least 5 years that a poorly performing PA becomes a paper park.

3.3. Protected areas with known, but limited, management intervention needs

Some PAs require no management intervention to maintain their biodiversity features. In particular, IUCN Management Category Ia sites (Dudley, 2008) often need very little intervention because they are in remote locations with few direct threats. Insofar as these PAs are meeting their conservation objectives, and authorities are monitoring them and confirm the lack of need for active management, they are not paper parks because the management strategy proposed for these sites requires no management intervention. However, the continuation of periodic monitoring and evaluation is essential to ensure objectives are still being met and the management approach remains appropriate. There are no universal rules on what this should entail. Rather, monitoring is a critical component of management, with the frequency and indicators determined on a case-by-case basis according to the range and degree of pressures.

4. Recommendations

4.1. Identify and account for paper parks

Our definition highlights that paper parks are not managed for conservation; thus, they do not meet the IUCN definition of a PA. Consequently, we recommend that national governments account for this when reporting on the state of their PAs as part of their international obligations and commitments, for example, when providing their data for inclusion in the World Database on Protected and Conserved Areas (WDPCA). Identifying paper parks is potentially easier than identifying poorly performing PAs. This is because diagnosing poor performance requires evaluating a wide range of metrics, reflected in comparatively complex PAME assessment tools. In contrast, paper parks are defined by their absence of interventions. Thus, a PA could be identified as a paper park when management is not occurring in practice, evidenced by the absence of on-the-ground activities, management plans, staff, or budgets, for example.

New approaches for identifying and reporting paper parks have to be developed with care. This is because designating a PA is itself an important step that can sometimes provide security against, for example, large-scale developments. Removing areas with de jure PA status from recognised databases could expose these sites to increased pressure. Thus, many paper parks are likely to have genuine conservation value. A proposed solution is to retain data on these areas in the WDPCA but record in its companion database, the Global Database on Protected Area Management Effectiveness (GD-PAME), that they have been identified as paper parks. As the databases are linked, this would provide a filter to make it easy for national governments to account for paper parks when reporting their progress towards international targets. It would also help advocacy groups highlight the need for better investment and encourage donor support for these sites. Ultimately, this would add granularity to these reporting systems, complementing the ongoing identification of PAs with low management effectiveness by distinguishing them from PAs where management is entirely absent. Deciding how best to accurately account for paper parks within international monitoring systems remains an open question though, and developing the final system will require discussion among multiple relevant stakeholders. Final decisions on reporting against international targets, as ever, will rest with national governments. Moreover, any system for identifying and reporting on paper parks must be accompanied by robust systems for monitoring and responding to poorly performing parks (e.g., via PAME evaluations).

Many governments are currently looking critically at their PA systems to see the extent to which they meet the expectations of the GBF, so an examination of paper parks is timely in this context. Our definition and decision tree should be used by the relevant authorities, PA managers, and practitioners to understand the prevalence of paper parks. This would ensure that the term ‘paper parks’ is used with precision, rather than as a catch-all that encompasses both paper parks and poorly performing PAs. Using our definition, the number of paper parks is likely to be lower than estimates from previous studies, which often conflated them with poorly performing PAs (Perry et al., 2020; Rife et al., 2013). However, the ambitious area-based conservation targets set by the GBF could inadvertently encourage the designation of new PAs without having the resources for implementation and active management (Barnes et al., 2018). Hence, the importance of having a clear method for identifying paper parks and separating them from poorly performing PAs is critical.

4.2. Identify the drivers of paper parks

By identifying paper parks, we can then start determining what drives their existence. We can also develop approaches for avoiding the creation of more paper parks while transitioning existing paper parks into implemented PAs. In particular, research is needed to look at the

process of establishing new PAs in different countries, identifying barriers to the implementation of management. There will likely be a variety of drivers that may differ between paper parks and poorly performing PAs (Barnes et al., 2017). However, some of the drivers might be the same, such as a lack of funding (Coad et al., 2019; Gill et al., 2017). In the case of paper parks, the lack of resources is likely to be even more severe, given that management may never have been implemented in the first place or may have ceased entirely at a later date. Lack of capacity is also likely to be an important issue at both institutional and site levels.

4.3. Prioritise action on paper parks

Identifying where best to spend conservation resources on PA creation and management is essential (Balmford et al., 2003; Geldmann, 2023; Wilson et al., 2007), and we argue that a similar approach is needed to prioritise where best to tackle paper parks. We should identify the paper parks that are most needed to meet GBF Target 3 (such as high biodiversity value) and direct resources to those, so that they can implement management interventions (Tallis et al., 2021). In addition, particular attention should be given to addressing paper parks in countries that do not have effective overarching national conservation legislation (Evans et al., 2021), such as laws to protect important species and ecosystems, as implementation and active management of PAs in these countries is likely to be much more crucial to conserve biodiversity. Overall, any investment decision should be influenced, but not dominated, by information on paper parks within a PA system. For example, there are likely to be instances where investing in poorly performing PAs might be more cost-effective than investing in paper parks, where existing infrastructure and capacity are entirely lacking. Across cases, efficient resource allocation requires the ability to reliably distinguish paper parks from poorly performing PAs.

5. Conclusion

The term paper park is used widely and inconsistently. Our new definition is designed for researchers, practitioners and policy makers to distinguish between paper parks and poorly performing PAs, as the current lack of precision hampers efforts to describe and understand the related issues. This distinction is important because it has implications both in terms of reporting progress towards area-based conservation targets and protecting biodiversity. It means further research is needed to identify and map paper parks, understand why management interventions are absent, and develop steps to overcome the barriers to implementation. This reflects wider calls for the more systematic tracking and understanding of 'conservation abandonment' within and beyond PAs (Pienkowski et al., 2025). Without such work, there is a risk that GBF Target 3 will perversely incentivise the creation of more paper parks (Barnes et al., 2018), and those that already exist might hamper national and global conservation efforts, particularly in areas of high biodiversity and low enforcement of national legislation. We hope that by defining paper parks and providing a mechanism for their identification, we provide an important initial step towards ensuring effectiveness across all PAs and OECMs, which will be vital if GBF Target 3 is to be achieved in full.

CCRediT authorship contribution statement

Jessica L. Stewart: Writing – original draft, Visualization, Project administration, Investigation, Funding acquisition, Conceptualization. **Naomi Kingston:** Writing – original draft, Visualization, Supervision, Investigation, Funding acquisition, Conceptualization. **Natasha Ali:** Writing – original draft, Investigation. **Heather C. Bingham:** Writing – review & editing. **Zoe G. Davies:** Writing – original draft, Investigation. **Nigel Dudley:** Writing – original draft, Investigation. **Charlie J. Gardner:** Writing – original draft, Investigation. **Jonas Geldmann:**

Writing – original draft, Investigation. **Diego Juffe-Bignoli:** Writing – original draft, Investigation, Conceptualization. **Thomas Pienkowski:** Writing – review & editing. **Rachel E. Sykes:** Writing – original draft, Investigation, Conceptualization. **Neil D. Burgess:** Writing – review & editing. **Kirsten Grorud-Colvert:** Writing – review & editing. **Emily Jordan:** Writing – review & editing. **Brian MacSharry:** Conceptualization. **Jenna Sullivan-Stack:** Writing – review & editing. **John Wai-thaka:** Writing – review & editing. **Robert J. Smith:** Writing – original draft, Visualization, Supervision, Investigation, Funding acquisition, Conceptualization.

Declaration of competing interest

The authors have no conflict of interest to declare.

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Data availability

No data was used for the research described in the article.

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