

Capacity development for conservation

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Anthropogenic pressures on the environment and natural resources have grown significantly in both number and extent over the past 50 years (Dobson et al., 2021). But beyond their impact on global biodiversity per se, these pressures also pose a substantial problem for the conservation community. This is because the breadth and complexity of the skills, knowledge and resources required to achieve collective conservation goals have also grown markedly. Calls for urgent transformative change at a societal level (IPBES, 2019) reflect the need to strategically apply a more diverse set of competences and innovative mechanisms to conserve nature. As a result, identifying, prioritizing and funding the development of conservation capacity is now one of the most pressing and significant conservation challenges of the 21st century (O'Connell et al., 2017).

It has been widely recognized that as a community we need to develop a more strategic, coordinated and sustainable approach to capacity development at all scales (Campagnaro et al., 2022, O'Connell et al., 2022). However, although the urgent need for the development of conservation capacity has been identified, until recently there was a paucity of published research to provide guidance on the key knowledge gaps, the effectiveness of different approaches, and future priorities. In the past decade, a growing community of conservation practitioners has attempted to address this range of capacity development issues.

It was in response to the need to bring together key members of this community that three regional conferences were convened, in Colombia in 2013, Kenya in 2015 and India in 2017, to discuss methods and share solutions and best practice. A fourth conference was held in the UK in 2019 to consolidate the key ideas arising from these previous meetings. The capacity for conservation theme in this issue of *Oryx* is the principal output from that gathering. It is intended to provide both evaluation and reflection on current practices and provision, and contribute conceptual frameworks for a more strategic way forward. In particular, this collection of 14 articles reflects on four key thematic areas of conservation capacity development.

Understanding the complexity of the challenge Conservation actions require practitioners to work with natural and social systems that are inherently unpredictable and complex

(Massarella et al., 2021). A common feature of many areas of conservation action is therefore that one approach does not fit all, and local perspectives, contexts, attitudes and funding can significantly alter the outcomes of conservation actions. This has created a range of difficult issues for conservation capacity development, where past efforts have tended to focus on individuals and technical skills. A thread throughout this capacity for conservation theme is the need for whole-system thinking, to tackle the issue of complexity driven by local contexts (Porzecanski et al., 2022).

Valuing diversified engagement The conservation sector needs to diversify its professional practice by engaging people with a broad variety of expertise, experience and resources from across society as facilitators and practitioners (Appleton et al., 2021), including those that might not traditionally be aligned to the core conservation mission. Engaging a diversity of peers, and actively addressing issues of equity, deepens conservation thinking and broadens its relevance and effectiveness (Anthem & Westerman, 2021). This will be critical for developing capacity in areas where local communities are affected severely by the loss of biodiversity but where conservation approaches also need to be decolonized (Domínguez & Luoma, 2020). This will also require diverse, effective and resilient leaders (Sandbrook et al., 2021; Webb et al., 2021). These individuals and their institutions need both technical and functional capacities, but these leaders will also require less tangible skills such as being relational and reflective, trust-building, visioning and problem-solving (Black, 2021; Abu-Bakarr et al., 2022; Campagnaro et al., 2022; Loffeld et al., 2022b). Removing barriers, such as budget, language and location, to accessing relevant learning activities is an important consideration (Chao et al., 2022).

Creating strengthened networks and opportunities for innovative practice and learning There is a considerable need within the conservation capacity community to create and develop collaborative networks. These have been shown to promote supportive practice that can encourage application of skills and knowledge within learning communities (Bruyere et al., 2022) and enable innovation and upscaling. A number of established conservation leadership development programmes have found that experiential learning opportunities combined with peer network development are effective (Sandbrook et al., 2021; Abu-Bakarr et al., 2022). Additionally, creating safe spaces for peer-supported learning and development helps practitioners build resilience, experiment with a wider range of approaches, accept and learn from failure, and enhance creativity and innovation (Dickson et al., 2022; Loffeld et al., 2022a).

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Resourcing future increases in capacity development activities One of the major drivers for the work outlined in this capacity for conservation theme has been that the impact of capacity development initiatives on halting the loss of biodiversity has not always been apparent to the wider conservation community. It can be hard to attribute the outcomes of capacity development initiatives, particularly given the time lag between action and impact, although methodologies are being tested, with some success, to improve this (Gerrie et al., 2022). These long timescales can be problematic when donor funding cycles tend to be short (Echols et al., 2019). Furthermore, given the predicted increases in the range, magnitude and extent of future environmental issues and the barriers to addressing these, it is clear that efforts to develop conservation capacity will need to be significantly scaled up. There is therefore a considerable need for capacity developers to work more effectively with the donor community in identifying future priorities and best practice methods (Santy et al., 2022). Connected to this, it is important to improve the means by which we can measure and evaluate capacity initiatives (Sterling et al., 2021). This difficult area associated with conservation capacity development was a major theme at the UK conference in 2019.

The challenge to build sufficient conservation capacity to deliver effective, timely nature protection at the scale needed is significant. There is increasing recognition that collaborative investment in all these areas needs to be made to facilitate urgent and critical conservation actions, but also to sustain the positive impacts from these. This collection of papers demonstrates there is a good understanding of the task ahead, and increasing evidence to support many of the approaches being taken. To ensure a future for life on our planet, we now need to multiply efforts to harness holistic, diverse engagement, secure adequate resources and enable the supportive, connected networks necessary to increase and strengthen capacity for effective delivery of conservation impact.

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