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People and Nature

PERSPECTIVE

Six actions to harness the potential of social surveys on people and nature relations: A UK cross-sectoral perspective

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Abstract

1. Robust data on the state of relationships between people and nature is a critical component of the evidence base for environmental governance at local, national and global scales.
2. Social surveys are a valuable method already used by some governmental and non-governmental organisations to gather this evidence. However, a lack of coordination hampers efforts to harness the potential of people-and-nature surveys to better inform policy and practice.
3. Specifically, designers and administrators of people-and-nature surveys should ensure that surveys are relevant to current policy challenges, robust in their use of socially and statistically validated questions, and the data produced are accessible to diverse communities for research, practice and advocacy.
4. Integrating the experience of a group of UK survey researchers and practitioners, this Perspective identifies six actions to enhance the value of people-and-nature surveys for environmental governance: strengthen access to survey data; co-define meaningful constructs and questions; invest in continuing datasets; mix methods appropriately; track the use and impact of survey insights; and foster partnerships and capacity sharing to enable these actions.
5. Together, these actions could enable people-and-nature surveys to better serve user needs, build cross-scale usability and contribute critical insights on progress towards national and global environmental goals.

KEYWORDS
administrative data, environmental social science, people-and-nature surveys, people-nature relations, public datasets, survey methods

1 | INTRODUCTION

From pursuing the sustainable development goals (SDGs) to delivering on the Kunming-Montreal Global Biodiversity Framework (GBF), there is a need for relevant, robust and accessible evidence about the human dimensions of social-ecological systems (Affinito et al., 2024; Hák et al., 2016). Social surveys on people's diverse and contextually-dependent relationships with nature (henceforth people-and-nature surveys) provide quantitative and qualitative data that can critically inform governance strategies, from understanding the use of urban green spaces to capturing environmental attitudes (Phillips et al., 2022; Phillips et al., 2025). Yet, at present, the influence and impact of people-and-nature surveys for policy and practice are limited. To harness the potential of people-and-nature surveys, we argue that designers and administrators of people-and-nature surveys need to ensure that surveys are relevant to current policy challenges, robust in their use of socially and statistically validated questions, and that survey data are increasingly accessible to diverse user communities. This paper proposes six actions to improve the coordination, comparability and strategic design of people-and-nature surveys to strengthen their cross-scale usability and contribution to environmental policy and practice.

While people-and-nature surveys are conducted in many jurisdictions throughout the world, the United Kingdom is home to an especially long-standing and diverse ecosystem of people-and-nature surveys (Montana et al., 2024; Park et al., 2011). This Perspective articulates the insights and expertise of a group of researchers and practitioners from UK universities, government agencies and non-governmental organisations with experience designing and delivering people-and-nature surveys. As a loose 'community of practice', we seek to strengthen organisational learning amongst survey practitioners, acknowledging that the producers of environmental knowledge—which ultimately shapes the scope of social and political action on the environment—have a responsibility to critically reflect on their own knowledge-making practices (Turnhout, 2018). Here, we draw lessons from our experience in the United Kingdom that may help inform and support the development and strategic coordination of people-and-nature surveys in other contexts.

2 | PEOPLE-AND-NATURE SURVEYS

Social surveys are a structured data collection method that involve eliciting information from respondents through a series of verbal or written questions (Fowler, 2013; Groves et al., 2009). They are typically designed to gather insights about the opinions, beliefs, intentions, behaviours and other characteristics of a human population by sampling a sub-set of respondents. Depending on their design, surveys can identify broad trends across a population or provide insights that help explain why certain trends may be occurring.

Social surveys are a valuable research method for understanding people's many and varied relationships with nature. They provide a means for directly asking members of the general population about a range of concerns, including their:

- Use of green, blue and other natural spaces (e.g. Phillips et al., 2022);
- Knowledge and understanding of the natural environment (e.g. Robelia & Murphy, 2012);
- Perception of threats to biodiversity (e.g. Stewart-Knox et al., 2024);
- Biocultural relations and values (e.g. Gould et al., 2014);
- Connection to nature (e.g. Balundė et al., 2019);
- Environmental attitudes (e.g. Gunnarsson et al., 2017);
- Experienced health and wellbeing benefits of time spent in nature (e.g. Park et al., 2011);
- Pro-environmental behaviours (e.g. Dunne et al., 2024).

Due to their versatility, people-and-nature surveys are increasingly used by governments, NGOs and academic researchers to inform a variety of governance domains. They have captured valuable insights in policy areas from public health (Hartig et al., 2014; Mitchell & Popham, 2008), education (Vella-Brodrick & Gilowska, 2022), urban planning (Boulton et al., 2018), crime reduction (Weinstein et al., 2015) to nature and wellbeing (e.g. the BIO-WELL scale, Irvine et al., 2023). In the United Kingdom, results from England's People and Nature Survey are treated as official national statistics and reported in the UK natural capital accounts and national well-being measures, as well as being used directly by governmental departments in the implementation of policies, such as England's Environmental Improvement Plan 2023. Non-governmental organisations also use surveys in advocacy work, such as WWF UK's use of a survey on people's time in nature as part of a behaviour-change campaign aiming to improve people's mental and physical health by spending more time outdoors (WWF UK, 2024). Indeed, people-and-nature surveys are many and varied (see some examples of people-and-nature surveys administered by the authors' organisations in Table 1). They can be longitudinal (e.g. People and Nature Survey, Natural England) or one-off (e.g. Recovering Together Survey, RSPB) depending on whether they seek to monitor long-term trends or capture timely snapshots of people-nature relations. Surveys differ according to whether the data they collect are representative using random or stratified sampling (e.g. to represent the characteristic make-up of the national population, such as the Public tracking survey, WWF-UK) or non-representative relying on convenience or self-selected samples (e.g. The Great Big Nature Survey, The Wildlife

TABLE 1 Examples of people-and-nature surveys from UK government, NGO and academic sources.

	Lead organisation(s)/ data collection partner (years operating)	Current sampling	Data collection approach	Representative or non-representative sampling	Constructs covered	Data sharing (source)	Primary (secondary) use	References
People and Nature Survey (previously the Monitor of Engagement with the Natural Environment survey/MENE)	Natural England (governmental)/Kantar (2009-)	Four times per year, sample of 25,000 adults per annum	Online, people-and-nature specific	Nationally representative (England adults)	Frequency of use of green/blue/natural spaces; Barriers to visits; Activities undertaken; Attitudes to nature/environment; Pro-environmental behaviours; Wellbeing measures	Public data sharing (UK Data Service) with some restricted aspects	Monitoring (Research/ Advocacy)	Marshall and Natural England (2022)
Recovering Together Survey	RSPB (NGO)/YouGov (2020)	One-off sample of 2155 people	Online, people-and-nature specific	Nationally representative (UK adults)	Frequency of use of green/blue/natural spaces; Barriers to visits; Attitudes to nature/environment; Wellbeing measures	Synthesised data reporting (Published report) and mostly restricted access	Advocacy	RSPB (2020)
The Great Big Nature Survey	Wildlife Trusts, UK (NGO) (2023-)	One-off sample of 2476 people; And continuous self-selecting sample	Online, people-and-nature specific	Nationally representative; And non-representative (UK adults)	Frequency of use of green/blue/natural spaces; Attitudes to nature/environment; Perceived threats to biodiversity; Pro-environmental behaviours; Wellbeing measures	Synthesised data reporting (Published reports) and mostly restricted access	Advocacy (Research/ Monitoring)	Papworth (2025a, 2025b)
Public Tracking Survey	WWF-UK (NGO)/ Dynata	Continuous sample of 2000 people per quarter	Online, not people-and-nature specific	Nationally representative (UK adults)	Attitudes to nature/environment; Perceived threats to biodiversity; Pro-environmental behaviours	Restricted access	Monitoring	N/A
Renewing Biodiversity Longitudinal Survey (ReBLS)	University of Exeter (academic) and Natural England (governmental)/YouGov (2023-)	Continuous and repeated sample of 18,000 people	Online, people-and-nature specific	Nationally representative (UK adults)	Frequency of use of green/blue/natural spaces; Barriers to visits; Activities undertaken; Attitudes to nature/environment; Perceived threats to biodiversity; Pro-environmental behaviours; Wellbeing measures	Planned public data sharing (Unspecified)	Research/ Monitoring (Advocacy)	Phillips et al. (2025)

Trusts); use data collection that is in-person, via the telephone or online; focus specifically on people-nature relations or form part of a wider combined survey that also addresses other issues (known as an omnibus survey); and lead to data sharing that is public (i.e. open access and freely available) or restricted (i.e. limited to sharing between approved organisations, generally governed by a Data Sharing Agreement). People-and-nature surveys can also cover a wide range of constructs (referring to 'the abstract idea[s], underlying theme[s] or subject matter that one wishes to measure using survey questions' Lavrakas, 2008), including but not limited to: Frequency of use of green/blue/natural spaces; Barriers to visits; Activities undertaken; Attitudes to nature/environment; Perceived threats to biodiversity; Pro-environmental behaviours; and Wellbeing measures.

Given that these surveys are carried out for a range of purposes (e.g. monitoring, understanding or advocacy) across a range of spatial and temporal scales by governmental, non-governmental and academic organisations, there are arguably no universally better or worse design choices, such as sampling and data collection protocols (Figure 1). However, if the significant resource investment that goes into people-and-nature surveys is to produce something greater than

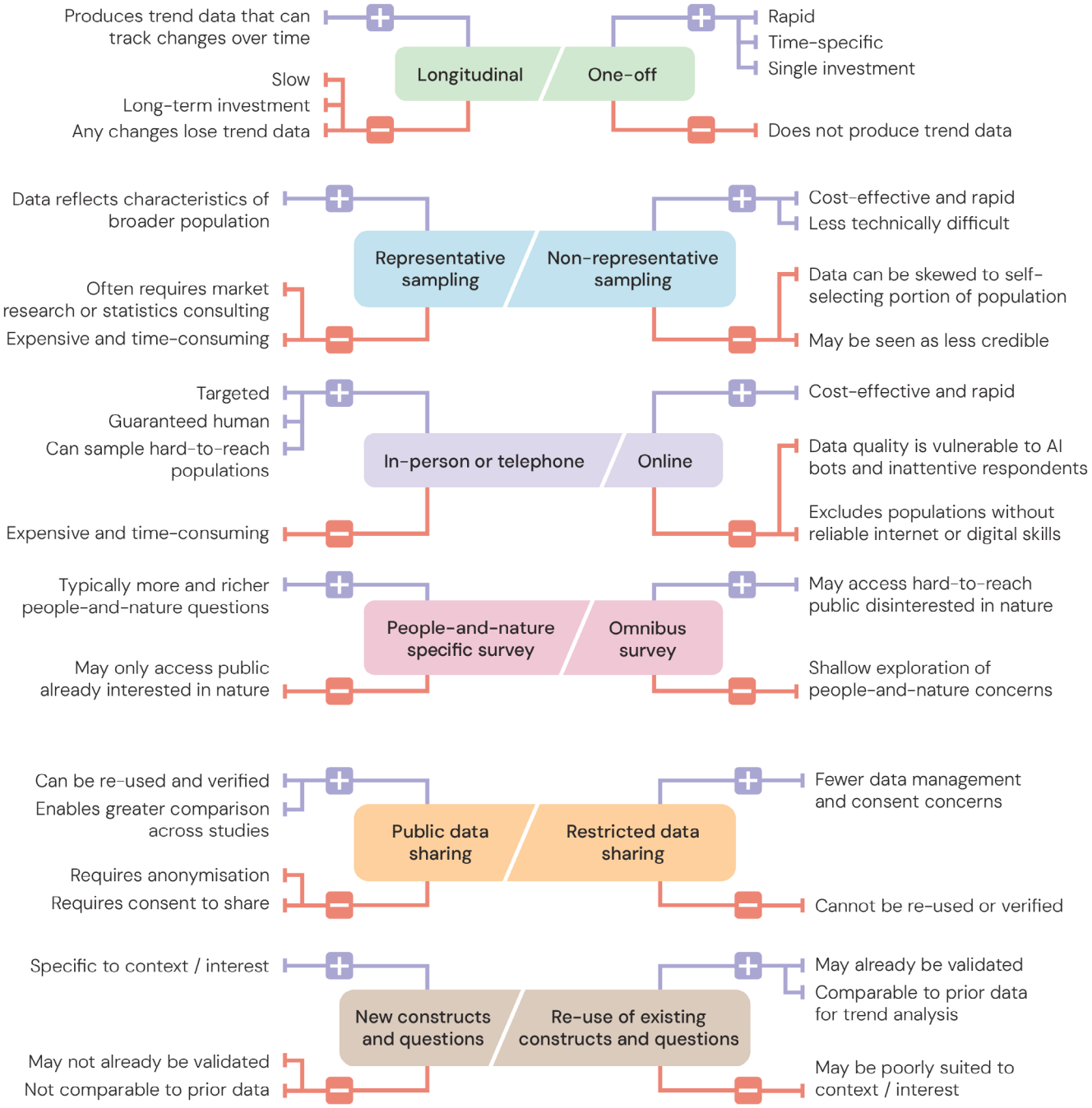

FIGURE 1 The benefits (+) and limitations (−) of different survey research design choices for people-and-nature surveys.

the sum of its parts, there is a need for strategic coordination. In the United Kingdom alone, an analysis from 2011 found at least 26 public datasets drawn from people-and-nature surveys (Park et al., 2011). A 2023 follow-up study found at least 18 current or recently active people-and-nature surveys commissioned or conducted by governments, as well as numerous comparable surveys by NGOs (Montana et al., 2024). Despite the seeming abundance of these surveys, their collective value is limited by challenges in replication and comparison. This is because survey research design choices are rarely consistently applied and survey data is often left unpublished or without clear methodological explanation. A recent assessment of the comparability of government people-and-nature surveys across the UK nations, for example, identified that constructs and questions were inconsistently captured across the surveys, meaning that the United Kingdom still lacks national-level insights that cut across England, Northern Ireland, Scotland and Wales (Tyley & Blodgett, 2023). If insights from people-and-nature surveys are going to effectively inform environmental governance then surveys need to be relevant to current and continuing policy challenges, robust in their use (and re-use) of socially and statistically validated questions, and data needs to be consistently accessible to a wide range of users. This is important so that analysts and decision-makers can easily identify and understand trends in people-nature relations, justify decisions based on data that are open to public scrutiny and avoid the costs of replication where a survey is capturing findings that have already been captured elsewhere.

3 | SIX ACTIONS TO HARNESS THE POTENTIAL OF PEOPLE-AND-NATURE SURVEYS

To support the production of accessible, relevant and robust people-and-nature survey data with enhanced potential for informing policy and practice, we identify six actions that can be taken by survey research designers and administrators (Table 2). We expand upon each action below. We deliberately do not prescribe a set of definitive survey research design choices, because these will depend on the context of survey application. However, we encourage those working in the United Kingdom and other jurisdictions around the world to invest in the production of long-term nationally-representative survey monitoring across the range of people-and-nature constructs identified above and to make the anonymised data publicly available for re-use.

3.1 | Strengthen access to and increase transparency of survey data for re-use by others

There is an important opportunity for data from long-term and one-off nationally-representative surveys to be made publicly available. Where possible, people-and-nature survey datasets should be published in full in open access repositories such as the UK Data Service platform adopting an open data approach. We acknowledge this is not a straightforward ask, as the results from social surveys are generally covered by data protection legislation and often require human research ethics approval, which constrains how datasets can be shared and used once they are collected. Yet, these constraints can be navigated through appropriate permissions and anonymisation in order to produce open data. Making survey data easily findable will also be enhanced by shared publication keywords, such as the term 'people-and-nature surveys' used here, and clear metadata to ease interpretation. With the right investment, there is also opportunity for people-and-nature survey data to be pooled in national or even global-level observatories, such as has been done for other earth observation data (e.g. global ocean observation, von Jackowski, 2025).

3.2 | Co-define meaningful constructs and questions to enable re-use and data interoperability

Despite significant efforts, especially in relation to connection to nature (Whitburn et al., 2020), there remain few widely agreed upon metrics or standardised sampling protocols for people-and-nature surveys. Instead, surveys tend to address highly specific monitoring, advocacy or research needs rather than contribute to a broader shared knowledge base. There is an opportunity to better ensure that people-and-nature surveys are consistently meaningful to the research, policy and practice communities that use them, as well as the respondents that contribute to them. Because the meaning and relevance of specific people-and-nature survey datasets can vary due to different cultural and environmental contexts (Jayasinghe & Smiley, in press), enabling more meaningful surveys requires careful conceptualisation of the constructs and questions used, including attention to cross-cultural validity (e.g. to identify nature connection or relatedness Kövi et al., 2023) and more holistic understanding of the many facets of people-and-nature relationships (e.g. including questions on negative direct human–nature interactions, Soga & Gaston, 2022, or disconnection from nature, Beery et al., 2023) as well as cultural differences in worldviews. Co-defining meaningful constructs will require a wider set of disciplinary perspectives, pro-active engagement with local communities across cultures, as well as standards and guidelines for commonly used scales and questions so that the results of multiple surveys can be brought together more easily. While co-defining constructs for common use is beyond the scope of this Perspective, we invite future efforts by inter- and transdisciplinary teams to invest in this valuable process. For example, the BIO-WELL scale (Irvine et al., 2023) was designed using iterative, mixed-methods research including deliberative workshops and qualitative inquiry to ground survey constructs (such as 'biodiversity' and 'wellbeing') in real-world contexts to produce a multidimensional scale linking biodiversity attributes to human wellbeing.

TABLE 2 Actions to harness the potential of people-and-nature surveys to be taken by government/public bodies, NGOs and academic researchers, in partnership with consultants and industry partners who develop survey platforms.

Action	Vision	Practical steps	Barriers to navigate
(1) Strengthen access and increase transparency to survey data for re-use by others	Survey datasets are publicly available, accessible in full and easily findable to enable re-use, aggregation and additional analysis	Build familiarity with open data approaches and options, such as the UK; Data Service platform; Publish datasets in full with detailed explanation of methodology; Learn from other shared data management initiatives	Limited resources and incentive for data cleaning for shareability; Proprietorial approaches to collected data due to high investment costs; Human ethics and data protection rules limiting re-use
(2) Co-define meaningful constructs and questions to enable re-use and data interoperability	Constructs (and the questions underpinning them) that are relevant to people-nature relations are well-defined to be reliable, valid and meaningful across different cultural and environmental contexts to enable re-use, aggregation and additional analysis	Identify existing constructs (and the questions underpinning them) for re-use in new surveys; Assess problematic and missing constructs and questions via community-based co-design; Develop standards and guidelines for commonly used (validated) constructs and questions; Pay very careful attention to cross-cultural validity	Lack of familiarity with theory underpinning constructs; Disciplinary biases or strategic needs that narrow understanding of people-and-nature relations; Cost and commitment required to conduct co-design
(3) Invest in continuing datasets to identify trends	There are accessible datasets that are comparable and continuous covering nationally-representative samples and include clear methods and repeated questions over space and time	Advocate and apply for investment in long-term social data collection; Explore opportunities to collaborate across sectors to generate long-term datasets; Where appropriate, surveys should re-use existing constructs and questions across surveys for cross-comparability	Changing policy contexts requiring new questions; Changing priorities and personnel of surveying organisations; Changing biases introduced by self-selecting respondents in non-representative samples; Burden on participants of frequent lengthy questionnaires
(4) Mix methods appropriately to develop a deeper understanding of survey insights	Other qualitative and quantitative methods are used alongside surveys to enable contextualisation and ground truthing of findings	Supplement surveys with other methods, such as qualitative, digital and GIS-based approaches	Prioritisation of (sometimes) cheaper non-survey methods that do not require human data; Biases in data sources, such as self-selecting social media data; Cost and skills needed for qualitative research
(5) Track the use and impact of survey insights to enable feedback and learning	The use and impact of survey data is recorded and feedback is sought in order to improve surveys and justify further investment	Seek feedback from survey data users and contributors in order to improve surveys; Evaluate the impact of survey data and communicate these findings to survey funders	Lack of familiarity with evaluation protocols; Lack of resources and motivation to support evaluation; Reluctance of survey users and contributors to share their experience with surveys
(6) Foster partnerships and capacity sharing to enable these actions	There is strong communication and collaboration across sectors enabling data, resource and capacity sharing to increase the quality and investment in surveys	Build cross-sector partnerships to assist with survey research design, data collection and analysis of survey data; Leverage NGOs' advocacy experience to increase the impact and relevance of academic work; Co-design surveys with non-research community partners to increase surveys' relevance and impact within affected communities; Incentivise interdisciplinary research	Limited motivation and resources for collaboration; Proprietary approaches and lack of trust between sectors or organisations; Power imbalances within collaborations; Competing priorities across sectors; Institutional inertia; Ineffective communication across sectors, including the use of discipline-specific jargon that limits accessibility and mutual understanding

3.3 | Invest in continuing datasets to identify trends

Greater strategic investment in dataset continuity—or at least comparability—is needed to support knowledge of changes in people-and-nature relations over time (a recommendation also set out in Park et al., 2011). Although numerous government and NGO surveys are repeated periodically, they often revise survey questions to account for shifting policy and strategic needs. For example, the Scottish People and Nature Survey was first run

in 2013/14, dramatically reduced the range of questions asked in 2017/18 and then expanded again in 2019/2020. Current NGO efforts in the United Kingdom, such as the Wildlife Trusts' Great Big Nature Survey, are starting to contribute to long-term social data collection, as is the more recent Renewing Biodiversity Longitudinal Survey (ReBLS) panel study developed by the University of Exeter in conjunction with Natural England (Phillips et al., 2025). Provided anonymised datasets are made publicly available in full, we applaud these efforts and encourage further cross-sectoral investment and collaboration to support the creation of continuous and comparable data on people-nature relations. Re-using existing survey constructs and items will require some agreement between parties about what the most valid, reliable and relevant questions to ask in a survey are. For constructs focused on relatively unambiguous behaviours that can be captured in one or two short survey items, such as leisure time spent in green and natural spaces, this should be straightforward. For more complex constructs that include greater interpretive ambiguity, such as those focused on philosophical aspects of nature connection or environmental identity, there may be less consensus. However, individual organisations or consortiums could collaborate to build an evidence base around their preferred people-and-nature measures—as well as take the lead in ensuring that their preferred constructs have been socially validated (including community co-design where possible) to be meaningful to the diverse communities where surveys will be applied.

3.4 | Mix methods appropriately to develop a deeper understanding of survey insights

Survey results are always partial and limited, and should be understood in relation to the methods and contexts of data collection. Supporting the use of people-and-nature surveys amongst governance actors thus includes highlighting both their limitations and complementarity with other methods. There are many aspects of people-and-nature relations that cannot be captured by surveys, which often rely on quantified measurements and are sometimes associated with decontextualised or universalising conceptualisations of people-nature relations. The value of people-and-nature surveys can therefore be enhanced by combining them with other research methods that provide deeper contextual understanding of survey results, including qualitative approaches such as focus groups, interviews and participant observation (McDermott et al., 2023). Noting that over-surveying can result in survey fatigue and loss of public trust (Field, 2020), survey data can also be complemented by methods that do not place such great demands on participants, including: GIS-based approaches (e.g. mapping residents' values of green spaces in cities, see Ives et al., 2017); social media data (e.g. conservation culturomics, see Correia et al., 2021) and search engine data (e.g. Google Trends, see Phillips et al., 2022); as well as automated data collection from remote sensing, track counters and physical activity monitors (Pasanen et al., 2024). These opportunities present themselves alongside emerging challenges for survey practitioners. The high cost of survey administration increases the risk that social surveys (like other insightful but resource-intensive methods) may be replaced by, rather than used to complement, automated proxies such as remote sensing. Meanwhile, advances in large language models create new risks for data integrity, as AI-driven bots can now generate human-like responses that are increasingly difficult to detect using standard quality checks and pose a threat to the continuing validity of survey-based research (Westwood, 2025). Realising the value of people-and-nature surveys will therefore require coordinated effort across disciplines, sectors and organisations to navigate these challenges and pursue available opportunities.

3.5 | Track the use and impact of survey insights to enable feedback and learning

Systematically and consistently evaluating how people-and-nature surveys are used and how they impact environmental governance will enable their continued development and use. Survey producers would benefit from greater feedback about how government departments actually use survey data to shape policy design or evaluation and how it is interpreted in relation to other non-survey data. Public engagement is also necessary to understand the experiences of survey respondents and public views on the use of metrics contained in survey instruments. Such efforts at impact evaluation would help survey producers improve survey quality and make a stronger case for continued investment in surveys as an evidence-producing tool.

3.6 | Foster partnerships and capacity sharing to enable these actions

All the previous actions will require partnerships and capacity sharing across sectors. These relationships can take several forms. Academics (including postgraduate students) partnering with NGOs could provide much-needed capacity for in-depth data analysis beyond what is affordable within NGO operational budgets, especially if information needs about people-nature relations were more explicitly shared across sectors. Likewise, advocacy expertise and understanding of current civil society and policy concerns in NGOs can enhance the impact and relevance of academic work. Early engagement, collaboration and bottom-up design with non-research partners and intended survey users (such as community and grassroots organisations) can also support meaningful conceptualisation of survey constructs, help communicate and improve understanding of survey findings and inform future survey research design. In doing so, there is a need to promote clear, accessible and audience-appropriate communication (e.g. by reducing jargon, using plain language summaries and co-developing shared terminology across sectors).

4 | CONCLUSION

Efforts to address urgent environmental challenges underscore the need for accessible, relevant and robust evidence on people-nature relations. Here, we argue that improved coordination in the design and implementation of people-and-nature surveys is needed to enhance their relevance, robustness and accessibility. This is particularly critical given that people's exposure and connection to the rest of the natural world is increasingly recognised as foundational to human flourishing, yet human actions continue to degrade ecosystems at alarming rates. In offering six actions to improve the coordination, comparability and strategic design of people-and-nature surveys based on our collective experience in the United Kingdom, we hope that other similar actors around the world can better realise the full potential of people-and-nature surveys to inform more effective, equitable and evidence-based environmental governance with both people and nature at its heart.

AUTHOR CONTRIBUTIONS

Jasper Montana, Caitlin Hafferty and Tom Marshall designed methodology; Jasper Montana, Tom Marshall, Daniel Barrios-O'Neill, Sally Bavin, Martha E. Crockatt, Joseph Gent, Caitlin Hafferty, Mark Hirons, Joelene Hughes, Ellesse Janda, Jennifer C. Mailley, Constance L. McDermott, Jordan Rydlewski, Charlotte Simms, Jonathan Slessor, Diogo Veríssimo, Katrin Wilhelm participated in a workshop to develop the ideas; Jasper Montana and Lea May Anderson led the writing of the manuscript. All authors contributed critically to the drafts and gave final approval for publication.

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CONFLICT OF INTEREST STATEMENT

The authors declare that they have no competing interests.

DATA AVAILABILITY STATEMENT

No datasets were generated or analysed for the current study.

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