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PERSPECTIVE

Collaboration makes the master: Designing and implementing impact evaluations in Swiss parks

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Abstract

Impact evaluation design and implementation require technical and methodological skills and funding. If the interest is in bridging the research–practice gap and mainstreaming its recommendations into decision-making, then impact evaluations will require collaboration among researchers, practitioners, and funders. In 2020, Switzerland began applying impact evaluations to assess conservation and sustainable development outcomes in Swiss parks of national importance. Four years later, we count four impact evaluations on park effects. While three studies focus on the park effect on ecological compensation areas, turnover/business efficiency, direct payments, and farm income, one study compares the effect of park status on perceived landscape quality. Plans to design and implement further studies exploring the park effect are underway. In this paper, we present the main opportunities and challenges encountered during the design and implementation of these evaluations. Against this background, we emphasize that collaboration is key to mainstreaming impact evaluation into practice. This paper offers suggestions for fostering such collaboration across various stages of the impact evaluation process, including technical capacity, data collection, and funding.

KEYWORDS

conservation science, park effect, protected areas, science and practice gap, sustainable development

1 | INTRODUCTION

Parks and protected areas (P&PAs) are widely recognized as tools for both conserving nature and maintaining people's livelihoods (Maxwell et al., 2020; Watson et al., 2014). Depending on their objectives, P&PAs may be established with the dual objectives of conserving biodiversity and supporting local communities through the benefits derived from nature (Naughton-Treves et al., 2005). To understand if these objectives have been achieved and P&PAs are being implemented effectively, impact evaluations are of crucial importance (Mascia et al., 2014).

Impact evaluations aim to assess whether an intervention (e.g., established P&PAs) actually caused the intended changes, rather than those changes being due to other unrelated factors (O'Garra et al., 2025). Impact evaluations in P&PA management and conservation science are relatively recent compared to other disciplines, with

one of the first recommendations for their use made by Ferraro and Pattanayak (2006). Impact evaluations support an understanding of the effect of P&PAs using a counterfactual (i.e., what would have happened in the absence of the P&PA designation?). Although these evaluations provide an understanding of the effects of P&PAs, their use in conservation often faces barriers, such as budgetary and technical constraints (de Lange et al., 2016; Woodhouse et al., 2015).

Furthermore, synthesis of experiences in the design and implementation of impact evaluations in conservation science remains limited worldwide. Such examples are still relatively few (e.g., Ahmadia et al., 2015; McKinnon et al., 2015) compared to the need for systematic documentation of practical experience in conservation impact evaluations. Therefore, collecting experiences may help identify and understand challenges and opportunities of using impact evaluations, particularly regarding data collection, statistical analysis, and dissemination of the findings to relevant stakeholders.

Switzerland is an example of a country where documentation of the experiences and lessons of conservation-related impact evaluations is limited. Accordingly, the aim of this article is to share our experiences and a few lessons based on our four impact evaluations of the effects of Swiss parks (Ritzel et al., 2023a; Torregroza et al., 2023; Wang et al., in press; Cracco & Ritzel, 2025). While lessons learned in Switzerland—a developed country—may not directly apply to other contexts, particularly developing countries, they can still offer valuable guidance, as many of the challenges and opportunities addressed are common across countries. We provide our practical knowledge and reflections through examples and an initial vision to collaboratively realize the expansion of impact evaluations for other P&PA practitioners, decision-makers, and researchers in Switzerland and abroad. This study also aims to contribute to the broadening of the knowledge base and to the experiences shared by other authors (see Ferraro & Messer, 2025; Hajjar et al., 2025; Reddy et al., 2025).

2 | THE SWISS PARK CONCEPT

2.1 | Swiss parks of national importance

Although the Swiss National Park was established in the Swiss Alps in 1914 (see Figure 1), the history of Swiss parks of national importance (from now on Swiss parks) was initiated in 2007 with the revision of the Nature and Cultural Heritage Protection Act (SR 451—Federal Act, July 1, 1966 on the Protection of Nature and Cultural Heritage|Fedlex, 1966) and the related Ordinance. The Act and Ordinance set the principles regulating the procedures and prerequisites for Swiss parks. The network of "Swiss Parks of National Importance" includes the Swiss National Park (the only one officially categorized International Union for Conservation of Nature - IUCN

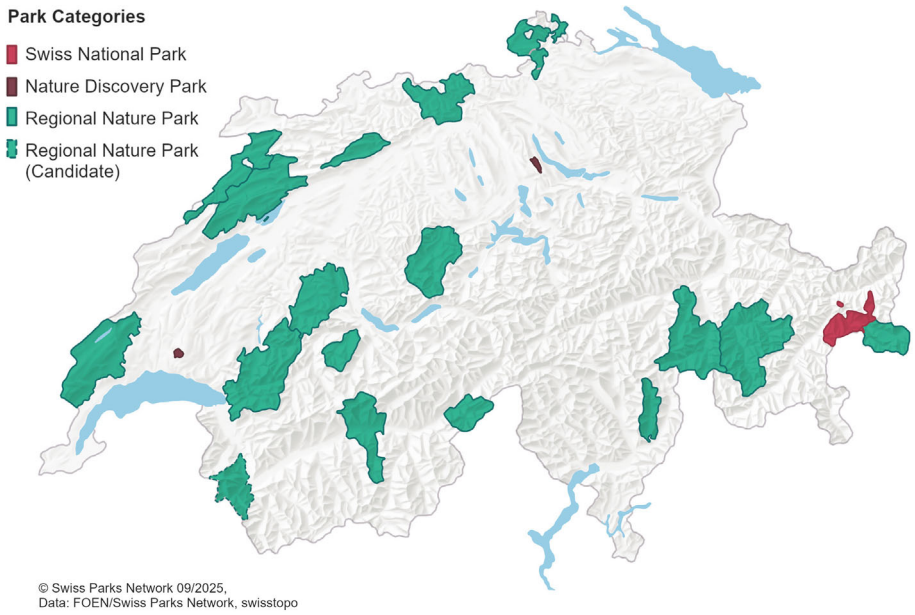

FIGURE 1 Swiss Parks of National Importance. The designation of "Swiss Parks of National Importance" applies to the only Swiss National Park (in red), regional nature parks (green, with one currently being established in the SW), and the discovery parks (maroon). The fourth type that uses the Swiss Park of National Importance designation includes new-generation national parks, which do not appear on this map because they have yet to be created/established (*map source*: SPN, 2025).

Protected Area Management Category Ia) (Swiss Parks Network [SPN], n.d.-a), national parks of the new generation (which could be equated to IUCN Category II, with core and buffer zones), regional nature parks (which have been equated to IUCN Category V) (Salomon-Cavin, 2017), and nature discovery parks (established near cities; these include core and transition zones). Currently, the network includes 19 parks that are operational and one park in the establishment phase (Figure 1) (SPN, n.d.-b, 2025). Economic activities (e.g., agricultural production) are permitted in regional nature parks (FOEN, n.d.). Accordingly, decision-makers and scholars consider Swiss parks model regions for sustainable development (SPN, n.d.-c). Each park includes park management staff who coordinate and conduct park-specific projects within the realms of nature and landscape, tourism, products and services, environmental education, cultural heritage, fundraising, and spatial information (SPN, 2018).

To gain park status, proponents interested in the proposed region(s) complete three steps (for details, see SPN, n.d.-c): (1) prepare a feasibility study and management plan for the proposed region(s); (2) conduct a collaborative process to develop a charter for the park. If the park meets the requirements set by the Federal Office for the Environment, the region obtains the "Candidate Park" label; (3) if the majority of the population of each park municipality votes in favor of the park, the Federal Office for the Environment evaluates the charter (i.e., formal agreement and strategic planning document) to determine whether it meets the requirements. The park then obtains the "Swiss Park" label and enters the operational phase. Step 3 ensures that the "Swiss Park" status is ultimately assigned by a policy institution (i.e., the Environment Office). Every 10 years, each park undergoes a charter evaluation, the park municipalities vote to maintain or remove the park status from the region(s) for the next operational phase, and the Federal Office for the Environment assesses the park's label renewal.

2.2 | Park evaluation

Although there is a paucity of impact evaluations, Swiss Parks (e.g., Chasseral and Gantrisch Nature Parks) have been subjected to other types of evaluations, including management effectiveness evaluations (Hockings et al., 2000). The completion of the initial 10-year phase evaluations by several regional nature parks in 2021 resulted in a collection of internal reports. There are several objectives of the evaluations: informing park authorities on the long-term development of park services and effects, informing park stakeholders regarding whether the park authorities are providing services proficiently, fulfilling the park's legal mandates, demonstrating effective financial support to the pertinent canton and the Federal Office for the Environment, and proving the park's benefits and added value to the public (e.g., Bär & Ehrensperger, 2020; Reutz et al., 2021). These evaluations, however, exclude the use of counterfactual approaches; thus, they are not considered impact evaluations. Therefore, there remains a gap in evaluations, particularly regarding the effect of parks on the achievement of their conservation and development objectives (e.g., maintaining valuable cultural and natural landscapes and promoting sustainable development). Responding to calls from the Swiss Academy of Sciences (Wallner, 2012; Swiss Academy of Science, park research seed money) to conduct impact evaluations, recent and upcoming research endeavors are focusing on addressing this pertinent issue. Below, we discuss our experiences in impact evaluations based on four of these most recent studies.

3 | IMPACT EVALUATIONS OF SWISS PARKS

Table 1 presents the summary of impact evaluations in Switzerland.

4 | MAIN LESSONS AND A VISION

Experience gained through the development of these four studies helped us synthesize lessons, focusing on fostering collaboration and an initial vision of the main elements to consider when working on P&PA impact evaluations in Switzerland and abroad.

4.1 | Main lessons regarding the need to foster collaboration

Evidence from impact evaluations in Switzerland has not yet been systematically integrated into P&PA management and the decision-making apparatus. However, the fact that four impact evaluations were implemented to understand the effect of nature parks in the last five years potentially attests to their value and provides a basis for analyzing the challenges and opportunities in conducting impact evaluation. The main lessons are discussed below.

High-level institutional objectives and mandates, combined with a specific call (funding) directed to park researchers, can foster transdisciplinary interest and

TABLE 1 An overview of the four impact evaluations we recently conducted for Swiss parks (see Appendix S1, for detailed information).

Categories	Ritzel et al. (2023a)	Torregroza et al. (2023)	Wang et al. (in press)	Cracco & Ritzel (2025)
Research objectives	To estimate the causal effect of park status on farm economic outcomes	To investigate how the inhabitants of parks perceive their landscape and how this perception relates to the Swiss population and changes over time	To estimate the effect of park status on ecological focus areas	To evaluate the effect of regional nature parks on agricultural earnings of farmers; other outcomes as permitted by time/data
Parks studied	Entlebuch Biosphere and Gantrisch Nature Park	15 regional nature parks (2 are also designated as United Nations Educational, Scientific and Cultural Organization - UNESCO Biosphere Reserves)	15 regional nature parks	12 regional nature parks
Data sources	Swiss Farm Accountancy Data Network (FADN)	Swiss Landscape Monitoring Program (LABES), Swisstopo, and other Landscape official data	Swiss farm census data, survey of parks (primary)	Data: Federal Office for the Environment, Federal Statistical Office, Swisstopo (topographic data), Meteoswiss, Central Compensation Office, Swiss Parks Network
Methodological approach	Synthetic control method in combination with a difference-in-differences estimator	Comparison of the development of landscape-monitoring indicator-values over time within and outside (including specific reference areas) Swiss regional nature parks (Matching)	Matching and difference-in-differences	Matching/synthetic control method and difference-in-differences

collaboration in developing impact evaluations. In Switzerland, the Swiss Academy of Sciences receives a mandate from the Federal Office for the Environment to coordinate park research. The mandate's foundation comprises the Environment Office's legal and policy responsibilities under park-related ordinances, which include the 10-year evaluation cycles Swiss Parks should undergo. In 2019, the Academy issued a call to increase evaluation research in parks, which has stimulated research interests from various institutions to conduct impact evaluations that compare park and non-park regions.

The four studies synthesized in this paper address different topics under this call. The first study (Ritzel et al., 2023a), conducted by researchers from Agroscope, a Swiss agricultural research institute, investigated the impact of parks on farm economic outcomes. The study received partial financial support from the Academy of Sciences. The findings of the study attracted interest from various stakeholders, particularly the SPN, the coordinating body of all parks and park projects in Switzerland, and set forth further collaborations between Agroscope and the Parks Network.

Particularly for the study Wang et al. (in press), the Parks Network provided important support regarding contextual knowledge of the establishment process of the park, which clarified the definition of the treatment in the impact evaluations. The Parks Network also coordinated a survey of 15 Swiss regional nature parks constituting part of the data used in the study. Through collaborating on Wang et al.'s (in press) study, the Parks Network and Agroscope researchers further identified new research demands and jointly created a transdisciplinary research proposal.

In Torregroza et al. (2023), the Swiss parks were examined for their landscape qualities. This study was supported by the Federal Office for the Environment as part of a long-term monitoring partnership with the Swiss Federal Institute for Forest, Snow, and Landscape Research.

The aim of Cracco and Ritzel's (2025) study was to use an impact evaluation to understand whether Swiss regional nature parks were effectively maintaining farmers' earnings. The Federal Office for the Environment, under the ValPar.CH project (Reynard et al., 2021), financed this study. Many practitioners, public institutions, and academics supported the evaluation with data and feedback. Swiss cantons and park stakeholders were interested and requested research on park effects to gain evidence for park management (as expressed during the development of Cracco and Ritzel, 2025).

Specific P&PA research conferences serve as venues to discuss similar research interests, find tailored support, and collaborate on impact evaluations. Events such as

park research conferences or workshops and meetings with stakeholders can support scientists in identifying relevant research demands, communicating and discussing findings (Hauss, 2020), and networking with potential mentors (Fisher & Trautner, 2022) interested in impact evaluations. The biennially coordinated Park Research Conference of the Swiss Academy of Sciences in Switzerland brings together academic and practitioner researchers from Switzerland and other countries interested in sharing park research. During the 2021 and 2023 conferences, the authors of the four impact evaluations featured in this paper met and became aware of each other's impact evaluations. At these conferences and follow-up meetings, further collaborations, particularly on applying impact evaluation methods in new contexts, such as park labels for agricultural products, both among the authors of the four studies and with other researchers (academics and practitioners), were planned and shared. At least three of the studies included researchers other than economists, and exchanges among multidisciplinary researchers stimulated new applications of impact evaluation methods. For example, the first author of Ritzel et al.'s (2023a) study guided the first author of Cracco & Ritzel's (2025) study in applying the synthetic control method (a specific matching method for creating counterfactuals; Abadie et al., 2010). Establishing and using simple channels (e.g., congresses and meetings) becomes essential to identifying interest and collaboration and sharing knowledge between transdisciplinary teams on impact evaluations.

Institutional collaboration can support availability and access to high-quality data, which continues to be one of the major challenges to developing rigorous impact evaluations, including in developed countries. Robust impact evaluations rest on high-quality quantitative and qualitative data (Garbarino & Holland, 2009). In the optimal case, data for conducting impact evaluations should cover observations of the same entities (e.g., humans, biodiversity, and farms) over an extended period (e.g., 10 years or more) on multiple spatial scales (e.g., canton, municipality, and parks) (Ferraro & Pattanayak, 2006; O'Garra et al., 2025). Challenges with high-quality data for impact evaluations have been identified and discussed by a few authors in conservation science (e.g., Ferraro & Pattanayak, 2006; O'Garra et al., 2025).

Data quality and access were the main challenges faced by our four research studies. For example, in Ritzel et al.'s (2023a) study, it was not possible to extend the empirical investigations to all Swiss parks due to time and funding limitations. As a further restriction, the Farm Accountancy Data Network data are only available for staff from Agroscope, the research arm of the Federal Office for Agriculture. By contrast, due to access to confidential data on agricultural earnings provided by the Federal Statistical Office, Cracco and Ritzel's (2025) study overcame the limitations of Ritzel et al. (2023a) and was extended to 12 nature parks.

Depending on the resolution and the outcome, data may be difficult to obtain, and if they exist, their quality may compromise the results. For example, in Ritzel et al.'s (2023a) study, the authors had to create a pseudo-panel. This technique is used when panel data have missing observations, and it ensures that the "constructed panel" consists of stable groups (aggregations) of individuals rather than individuals over time. The aggregation, in turn, lowered the number of observations available for empirical analysis, thus reducing confidence in the findings (Deaton, 1985). Cracco and Ritzel's (2025) study required making assumptions on education and farmers' skill levels, both variables that change over time, as census data were available for only the years 2000 (full-coverage, traditional) and 2010–2011 (registered-based census complemented by sample surveys), creating data gaps due to the missing years and necessitating the use of additional complex methods to link the available data (Spörri, 2021).

Even more fundamentally is deciding on what outcome measure to use *vis-à-vis* data availability and quality, which was not a straightforward endeavor in Cracco and Ritzel's (2025) study, in which at least four potential outcomes were preliminarily assessed before selecting one. The final decision followed a process of elimination from the ideal outcome of interest, and discussions with the technical counterparts of data providers in the relevant institutions to gain information on data quality and availability. For example, municipalities report tax data to cantons in an aggregated format, making it difficult to use the information for impact evaluations. The few cantons that report such data provide cross-sectional data instead of panel data. Furthermore, the system and process for obtaining the data may also require being physically present at the data provider's offices (canton or municipality) to retrieve them, adding time and effort constraints. Similarly, earnings from labeled goods produced in the parks are not always linked to producers, and many labels are reported in the same system but aggregated.

Conservation (landscape and biodiversity) outcome data are still gathered with insufficient frequency and granularity, which constrains their utility for impact evaluation. Park data management frameworks through interinstitutional collaboration are needed. If obtaining good-quality data on agricultural earnings is a demanding undertaking, data needs for non-economic outcomes remain a major barrier for conservation scientists interested in impact evaluations. Ideally, Cracco and Ritzel's (2025)

study should have included a landscape change outcome and combined economic and biophysical aspects in the research. However, landscape change data are collected once every 10 years in Switzerland, making it necessary to extrapolate to a yearly basis or reduce the number of observations in the pre- and post-treatment periods and for comparison purposes. This was also the case in Torregroza et al.'s (2023) study. The preliminary results, excluded from Cracco and Ritzel's (2025) study, were obtained with only three measures (two pre-treatments and one post-treatment), which decreased confidence in the results and their publication. Overall, measuring aspects that go beyond economics, such as changes in biodiversity or land use, presents additional challenges (i.e., difficult to observe and slow timescale changes) (Baylis et al., 2016). Selecting the outcome to be measured requires iteration cycles with existing data and data providers, which takes time and requires collaboration with all relevant institutions that maintain potential impact evaluation data.

Against this need to foster impact evaluations for Swiss—or any country's—parks, investments in impact databases are needed. Addressing this need would make extending the impact evaluations to other relevant sectors of the park economy, such as tourism, ecosystem services, or forestry, more feasible. The required future investments in the collection and provision of long-term relevant panel data call for collaboration among relevant actors.

Finding an impact evaluation mentor is time-consuming. Shared interests in the outcome, context, and research interests can help in the establishment of successful mentor–mentee relationships and bridge methodological hurdles. High-quality data are worthless without methodological skills. Three of the four studies applied a combination of econometric methods, such as matching and difference-in-differences estimation (Ritzel et al., 2023a, 2023b, Wang et al., in press, Cracco & Ritzel, 2025). These methods enabled these three studies to create meaningful comparison groups to identify the parks' impact on respective outcomes. Accordingly, gaining knowledge and experience in panel data and time series econometrics, as well as matching techniques, is of high importance when conducting impact evaluations (Garbarino & Holland, 2009). However, impact evaluation methods catered to conservation practitioners remain limited, as well as their training opportunities. Thus, designing and planning impact evaluations and understanding their approaches and results become challenging, especially if the researcher does not have a background in quantitative research methods (Jarvis et al., 2015), necessitating having a mentor. This was the case for the first author of Cracco and Ritzel's (2025) study, a biologist whose training on the concrete application of the methods came principally from a mentor. Beyond being exposed to the theory or general statistical understanding of experiments is the capability to take an impact evaluation to fruition, from data management and cleaning to empirical analysis.

Although identifying the need for a mentor was relatively easy, finding an interested and available mentor was a difficult task for the first author of Cracco and Ritzel's (2025) study. It took the practitioner-researcher over a year and a half, many emails, and virtual meetings with colleagues, as well as applications to international mentorship programs that failed. The interest of the mentor in a specific impact evaluation outcome is a factor to consider, as the research background of the mentee practitioner could reduce their likelihood of being considered by mentors within academia. Again, collaboration became important, from receiving recommendations to obtaining the final mutual agreement between mentor and mentee (e.g., exchange of mentoring for co-authorship in the resulting publication). Additionally, collaboration from institutions that support potential mentors is needed in these cases, as mentorship requires a high demand for resources (time and funds) from both mentors and mentees. Cracco and Ritzel's (2025) study was possible due to flexibility, interest in the topic, and overall support from Agroscope, the mentor's institution. The mutual agreement of co-authorship at the onset of Cracco and Ritzel (2025) was essential and provided a win–win situation for the mentee, the mentor, and their institutions.

Support for the use of relevant infrastructure and specialized software for impact evaluations could be secured through collaborative agreements. It was helpful that the researchers of these four featured studies had access to the relevant research infrastructure. Impact evaluations may require the use of high-computation clusters with enough Random-Access Memory (RAM) for the analyses of datasets with thousands of entries. For the first author of Cracco and Ritzel (2025), her university computer RAM was enough for most of the data management and cleaning and certain analyses. However, for specific estimations under the synthetic control method, the computer's RAM was insufficient. The estimation consistently crashed, costing weeks in failed runs and fixes. In this instance, access to the university's computation cluster and the support of two university colleagues whose work was to assist researchers with the clusters made the difference. Without this collaboration, the other option would have been to use the co-author/mentor's lab at his institution, a geographically distant and suboptimal solution, given the importance of the mentee being involved in all the stages of the analysis. In cases of limited access

to infrastructure, collaboration with existing capacity is essential.

Related to relevant infrastructure, impact evaluations require access to specialized software that can support database cleaning, trimming certain measures, and merging, among other data-processing procedures. Although relevant open-access statistical (e.g., R) and geographic analysis (e.g., Quantum Geographic Information System-QGIS) software may be available, tailored guidance during use is still required. In particular, the divergence in software preferences between econometricians (often using Stata) and conservation scientists (frequently using R) has been recognized as a barrier to collaboration in impact evaluation (Al-Dhahir et al., 2022). This was the case for the first author of Cracco and Ritzel's (2025) study. Even though the researcher and her co-author/mentor used Stata, working and collaborating with other researchers and modelers within her overall research project (ValPar.CH) and faculty was not always straightforward. Collaboration and problem-solving with colleagues were essential. In general, software advances have begun to address these challenges and propose solutions for multidisciplinary teams (Al-Dhahir et al., 2022; Cunningham, 2021; DIME Analytics Team, 2022).

4.2 | Our vision of future P&PA impact evaluations in Switzerland and abroad

Although Switzerland is a wealthy nation, our experience tells of conservation science researchers and practitioners facing impact evaluation development challenges (and opportunities) that are applicable to many other countries and contexts—such as multiple analysis scales due to administrative levels, decentralized decision-making to request and manage data access, lack of relevant data, and limited access to practical guidance—resulting in potential impact evaluation research isolation. Financial resources alone do not guarantee the mainstreaming of impact evaluations, as captured by our experience. The institutional and technical complexities and opportunities we navigated are applicable even beyond high-income settings. Therefore, our vision serves as a basis not only for Swiss P&PA managers, practitioners, decision-makers, and researchers interested in impact evaluations but also for other conservation science stakeholders around the world.

Conservation academics and practitioners collaborate in designing and implementing high-quality impact evaluations that provide evidence on whether P&PA and other conservation measures are achieving their objectives or require adaptation.

To implement the vision, drawing on the experience and lessons drawn from our four studies and the literature (e.g., Biggs et al., 2022; Cvitanovic et al., 2018; Jarvis et al., 2015, 2020; Wenger et al., 2002), we propose a main collaboration-oriented approach: to maintain an open and simple community of research and practice, leveraging further research interest, collaboration, and practice in impact evaluations.

A community of research and practice provides a network of champions and concrete mentors to guide practitioners, decision-makers, and students (Biggs et al., 2022; Wenger et al., 2002) to undertake impact evaluations in specific contexts such as P&PAs. Overall, these champions and mentors could also function as sounding boards during the planning and coordination of impact evaluations at the subnational, national, and international levels.

A community of research and practice could be coordinated through existing institutions and events dedicated to catalyzing research and practice (Biggs et al., 2023) on protected area management (i.e., park research in the Swiss Academy of Science for the Swiss case). Such a community could help define specific research questions and help disseminate and share experience with the different institutions collecting and maintaining relevant impact evaluation data.

Countries may benefit from the creation of a community of practice with flexible governance (Cvitanovic et al., 2018) and activities within existing institutions that already include park research as an objective (e.g., the Academy of Science in Switzerland). As communities of practice may require oversight to be effective (Wenger et al., 2002), shared administration and an integrated research agenda within individual researchers' activities in their respective institutions may expedite, simplify, and sustain their functioning. Each person in the community of practice could also serve to disseminate research results into practice. This community of practice could meet yearly during relevant congresses to reduce any financial and demanding time burdens.

Communities of practice are not new, and other scholars have discussed the need to establish evidence bridges between research and practice (e.g., Kadykalo et al., 2021; Mahajan et al., 2023). However, grounding these ideas remains a challenge unless discussions, concrete guidelines, and funding materialize into implementation.

The Society of Conservation Biology Impact Evaluation Working Group has already established a community of practice on impact evaluation that serves the international conservation community through different activities. Regional or even country-level communities of practice, as the one we propose, could be chapters of the impact evaluation working group and cater to practitioners and researchers with specific policy, historical,

ecological, and other contextual details that may be limited at an international level. In addition, these "sub-communities of practice" could help provide the supply of mentors required for the growing need to design and implement impact evaluations.

In Switzerland, this paper may well serve as a platform from which to further such discussions and continue implementation. Similarly, the Swiss community could specifically support park authorities during the preparation of the next park charter evaluation cycle in 2029–2030. In other countries, key park evaluation instances could also stimulate the work of communities of research and practice. More precisely, there is a need to establish a clear roadmap well in advance of new park evaluation cycles to allow enough time to develop and secure funds from diverse sources to develop impact evaluation research that informs the modification of P&PA activities. The roadmap could be accompanied by guidelines to help strategically place impact evaluations within the reach of park decision-makers at the relevant administrative levels.

Increasing access to practical courses for academic researchers and practitioners showcasing conservation science impact evaluations and sharing, to the extent possible, data and relevant codes (e.g., for R and Stata) becomes an opportunity for the community of practice. The community can catalyze the inclusion of impact evaluations in universities' curricula (including continuing education) directed at conservation scientists and practitioners. The latest technologies can be used to support these audiences, bridge software gaps, and leverage known guides (e.g., Cunningham, 2021) to provide practice codes. As in economics, marketing, and psychology courses, a collection of Stata and R codes for impact evaluation should become available specifically for conservation academics and practitioners. The design and implementation of impact evaluations on biophysical outcomes could be combined to help increase the sharable codes to train impact evaluation students.

Disseminating knowledge actively has been recommended by previous studies (e.g., Roche et al., 2022). We also advocate active dissemination through the research and practice community and through impact evaluation brokers (Cvitanovic et al., 2018) with national, regional, and local knowledge of processes, culture, and close involvement.

The collection of data requires resources. Usually, several institutions participate in collecting the data used for impact evaluations. However, legal and financing issues could limit data collection and sharing (Puri & Rathinam, 2019; Westby, 2011) among institutions and from institutions to academia. Data sharing needs to be streamlined while recognizing data intellectual property ownership. A community of research and practice that actively communicates specific data needs for impact evaluations to primary data generators and repositories becomes essential. P&PA monitoring systems could build synergies with other instruments to ensure better coordination and more comprehensive insights regarding data through the community.

In Switzerland, as abroad, it is recommended to align the timing of impact evaluations with the evaluation of the parks charter or management plans and to synchronize with other existing monitoring instruments (Cracco & Ritzel, 2025; Reusser, 2023). This alignment demonstrates the use of impact evaluations to generate evidence for management and to increase the efficient use of limited resources. Evidently, there is a need to identify and share research and activities that help advance impact evaluations at all levels, as already demonstrated by the Conservation Evidence Database at the international level (Sutherland et al., 2019) focusing at present on ecological outcomes. These datasets should be extended to cover the larger array of outcomes needed for P&PA management and to understand their impacts.

5 | CONCLUSION

We present and reflect on our experiences obtained during the development of four impact evaluations to understand Swiss park effects. As in other countries, Switzerland may benefit from more impact evaluations on the effects of parks, given that only a few are available to inform decisions. To achieve this, skills, funding, and data are needed because impact evaluations are complex. Collaboration is essential to their development, as shown by the lessons we gathered. Specifically, by maintaining a community of research and practice to catalyze evaluations, we can build knowledge based on the topic, communicate scientific findings in accessible ways, specify the needs of practitioners and management to academics, share data through efficient and effective channels, and mainstream the evaluation functions at different administrative levels. Addressing the challenges of impact evaluations that we have discussed in this paper can help derive even stronger measures and the capacity to improve the effectiveness and impact of P&PAs and other conservation measures to address global challenges in Switzerland and abroad.

AUTHOR CONTRIBUTIONS

MC and CR originated the concept of this perspective, which was then expanded with YW, MH, and LT.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

DATA AVAILABILITY STATEMENT

The data availability is not applicable for this manuscript.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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