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From Local to National: Perspectives from a Community Stewardship Approach

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Abstract: This paper explores how a place-based learning programme was scaled-up from a local to national context, identifying the steps required for this to be effectively accomplished. The Heritage Keepers programme is a national place-based learning programme piloted in 2022 as part of a partnership between Burrenbeo Trust (located in County Galway in the West of Ireland) and the Heritage Council of Ireland. This paper provides details on the programme's background, evaluation and outcomes; in addition to discussing the findings regarding the scaling-up of a community stewardship approach more generally. In outlining key considerations to scaling-up a place-based learning initiative from a local to a national context, we reflect, in particular, on the relevance of the experience for other initiatives looking to do similar. In considering stewardship outcomes, the conditions through which actions were supported have particular significance. The supports provided resulted in the completion of action projects clearly displaying active stewardship practices amongst participants.

Keywords *Community stewardship, scaling-up, place-based learning, collective action*

Introduction

This paper engages discussion on the intersections between place-based learning, stewardship, and community through the lens of a Burrenbeo community stewardship initiative. In particular, data for this paper were collected as part of the 2022 national piloting of the Heritage Keepers programme delivered by Burrenbeo in partnership with the Heritage Council of Ireland. Burrenbeo is an independent membership charity based in Kinvara, Co. Galway, working predominately in the Burren region in the West of Ireland. Since 2008, the organisation has coordinated and delivered a series of initiatives focused on engaging people with their places and helping to identify the community's role in caring for these places. This work has been completed through community and school-based programmes including walks, talks, community festivals, training events,

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and conservation volunteering. Place-based learning[1] and community stewardship are the concepts underpinning the work of Burrenbeo[2]. To that end, this paper considers how a place-based learning framework developed by Burrenbeo through the Heritage Keepers programme, can be scaled-up (from a local to a national scale) to successfully engage local community stewardship actions. We begin the paper by grounding relevant concepts in existing literature (specifically place, stewardship and connectedness), before providing an in-depth discussion of the Heritage Keepers programme. The results and discussion sections subsequently address key findings that seek to position local stewardship actions within a global context, moving towards an outline framework that can be replicated to address diverse contextual needs across a variety of scales and settings.

Burrenbeo's school-based education programmes have undergone a number of iterations since their inception in 2008. Originally called Ecobeo, the programme started as a 20-week course with fortnightly visits to schools by a range of local heritage experts (for example geologists, archaeologists, historians, ecologists, farmers, business owners and conservationists). Expensive to deliver and generally didactic, the programme was redeveloped and became *Áitbheo* (living place), placing more emphasis on inquiry based, active learning methodologies, and was delivered by Burrenbeo staff. The central aim of this reconfiguration was to result in an action project by schools once the programme was completed. More recently, the *Áitbheo* programme was further extended to move beyond the classroom, for delivery to community groups. Between 2008 and 2018, 1,446 primary school students and 304 secondary school students completed a Burrenbeo delivered programme (either Ecobeo or *Áitbheo*). However, research and practitioner experience suggested that, given the need for widespread action on issues related to biodiversity, climate, and heritage, extensive education programmes that do not address direct actions in response, were less meaningful. Similarly, given concern amongst young people around climate change (Hickman *et al.*, 2021), education and supports that facilitate action are now more important than ever. In an increasingly globalised world, with associated environmental and societal concerns, place-based learning is proposed as an approach that looks to address some of the challenges faced by contemporary society. As anxiety around climate change, biodiversity loss and community fragmentation receive more and more attention (Gidron & Hall, 2018; Panu, 2020), communities are keen to do what they can to address ongoing concerns. However, without support, both in terms of knowledge and finance, knowing where to start and knowing what is achievable, can be challenging.

Considering these perspectives, this paper presents a case study of learnings from the Heritage Keepers programme, a place-based learning initiative designed by Burrenbeo. Providing an overview of the Heritage Keepers programme and sharing relevant findings for future (similar) activities, this paper will be informative for academics and practitioners alike. The paper's lead author has been employed by Burrenbeo Trust since 2012 and in this time has engaged in development and dissemination of a variety of place-based

[1] Burrenbeo developed a working definition for place-based learning as learning about the place, in the place and for the place. This extends Lucas' (1972) categorisation of environmental education as education in, about and/or for the environment.

[2] Further details on Burrenbeo can be found at www.burrenbeo.com.

learning initiatives. In 2018, on commencing an Irish Research Council employment based doctoral programme, a new role was developed and taken on by the lead author involving practitioner research that ultimately resulted in the Heritage Keepers programme. The programme was designed and piloted by the lead author before being implemented more broadly within Burrenbeo, with delivery support and input on programme design from additional staff facilitators. The emphasis on supporting community actions through the Heritage Keepers programme is particularly relevant. We begin with an overview of the relevant literature around place, stewardship and connectedness, followed by an outline of the Heritage Keepers programme before concluding with the learnings from the national piloting of the programme and some suggestions as to how such learnings might be useful for similar initiatives.

Literature Review

For the purpose of this paper, we draw from literature addressing a number of concepts. These include: place, stewardship and connectedness. This reflects the ethos of the Heritage Keepers programme engaging themes at the intersection of each of these concepts with a view to developing actionable plans for participating community and school groups.

Place

The concept of place is central to this paper. Academic literature on place encompasses a wide variety of considerations including physical place, place attachment, and place identity (for further discussion see: Devine-Wright, 2009; Lewicka, 2011). While there are many definitions, there is general consensus that place is distinct from other concepts (such as space or environment) and encompasses the range of meanings and emotions associated with a specific location by individuals or groups (Tuan, 1977). Space has the capacity to be transformed into place as individuals experience, know, and create meaningful attachment to it. In contemporary society, the conceptualisation of place is further complicated by global mobility, including online 'places,' leading to a reduced rootedness to any specific geographical location (Relph, 2008; Augé, 2020; Orr, 1992).

Altman and Low (2012) associate place attachment with place identity, insideness, sense of place and rootedness (among other themes), positing that place attachment can foster and maintain group, community, and cultural identity (see also Carrus *et al.*, 2014). The impact of physical places on the development of a sense of place and attachment to natural surroundings is also represented in this literature (Corcoran *et al.*, 2009). In the context of this paper, these ideas reflect research on ways to reconnect with nature (Lumber *et al.*, 2017), further emphasising the importance of examining pathways to enhance our connection to nature for human wellbeing and pro-environmental behaviours (Richardson, 2023). Place-based learning then has the potential to address issues arising from contemporary concerns around our connection with the environment, viewing people as an ecology within a cultural, political, social, and biological context

(Woodhouse, 2001; Devine-Wright, 2013). Gruenewald (2003) emphasises the reciprocal and influential dynamic between human culture and place, while Kyle and Chick (2007) assert that socio-cultural bonds with specific places often flourish in the company of significant individuals. They argue that meaning and emotional attachment to a place manifest both cultural and individual identities. To isolate either culture or place without recognising their intricate interrelationship overlooks the distinctiveness that culture imparts to place. This connection (or disconnection as the case may be), underpins the approach employed in this paper, and the Heritage Keepers programme that informs it.

Stewardship

Much has been written on the concept of stewardship but defining the term is dependent on the context and discipline. Here, stewardship refers to the place-specific actions to which individuals and communities directly contribute their time (Carnell & Mounsey, 2022). Burrenbeo programmes look specifically to community stewardship, where people are working collectively on local stewardship actions rather than individual acts of stewardship. Irrespective of context (and partly in response to the various different definitions that exist) Bennett *et al.* (2018) have developed a useful framework for considering the key elements of stewardship initiatives. While their research relates specifically to environmental stewardship, this conceptual review and subsequent analytical framework suggests that context, actors, motivations, capacity, actions, and outcomes are the elements informing successful stewardship initiatives.

Also considering the multiple contexts for stewardship and looking to identify the elements that connect them, Peçanha Enqvist *et al.* (2018) suggest care, knowledge, and agency as critical elements for consideration in effective stewardship initiatives. In this instance, care refers to a feeling of attachment and responsibility that people hold in relation to their place. This is echoed in the findings of Masterson *et al.* (2017), who consider the contribution that sense of place can have on stewardship behaviours. Knowledge refers to necessary information and understandings about the place, which must be delivered in an appropriate manner (i.e. one that is understandable to the audience and relevant to the local context). Significantly, Schweizer *et al.* (2013) found that a place-based approach had significant potential for encouraging climate change actions, where the actions were situated in cultural values and beliefs, were meaningful to the local audience, and encouraged specific action. The final dimension, agency, refers to the ability and capacity of the community in question to enact change and complete actions. This is also of importance when considered in relation to the work of Haggard and Tsakiris (2009) who identify individual action and sense of agency as having the capacity to impact both individual and collective action. In developing the Heritage Keepers programme, the above elements were considered collectively and incorporated into both the ethos and practical delivery of the initiative.

Central to this care, knowledge, agency framework is an acknowledgement that if we want people to take action, knowledge (or awareness) on its own is not sufficient (Rousell & Cutter-Mackenzie-Knowles, 2020). Instead, a meaningful place-based approach is required where people care about what is happening in their place, and have

sufficient knowledge to operationalise the ability to act (Khadka *et al.*, 2021).This speaks directly to the notion that education will not be sufficient in addressing some of the issues faced by contemporary society, issues such as environmental and societal challenges (biodiversity loss, climate change, community fragmentation, inequality, among many others). While government action is required, there is also an important role for on-the-ground and grassroot community-led initiatives to address such challenges. The UNESCO 2020 Education for Sustainable Development Roadmap emphasises how meaningful transformation and action in terms of sustainable development is most likely to occur at community level. Considering climate change action specifically, Pickering *et al.* (2021) found that when young people had understanding around causes of climate change and knowledge of specific actions their sense of agency was increased. They recommended educational initiatives that highlight the positive and significant impacts which individual behaviours can have as a way of encouraging further action. Locally adapted solutions, alongside a combination of bottom-up and top-down actions are deemed essential (Pereira *et al.*, 2021).

Connectedness

A further important element in considering the possibilities for stewardship is the idea of collective effort (Peçanha Enqvist *et al.*, 2018), where those that are taking action are supported to feel part of a network who are both equally concerned and taking similar action, amplifying their impact through collective efficacy (Bandura, 2000). Coupled with this, the findings of Gallagher & Cattelino (2020) speak to the apparent contradictions between the desire for action and the feeling that individual actions are inadequate to address global problems. These authors further emphasise the importance of a collective approach – where behavioural change and action is based on an expectation that others are doing similar, resulting in a cumulative effect. Of significance to the work of Burrenbeo, is the suggestion by Diener and Hagen (2022), that a sense of place that embodies identities, meaning and belonging, is connected not only to the place, but also to the connections and networks that exist within and between communities and other organisations. If we are looking to encourage and support community action, we must consider not just the finances available to communities but also their human resources, networks, partnerships, and physical infrastructure (Verlinghieri, 2020). This is echoed in the work of Toomey (2023), who argued that facts will not change minds around conservation issues and that if the necessary changes in how we engage with our places and environments are to be realised, social networks, emotions and connections are fundamental.

As outlined above, the concepts of place, stewardship and connectedness are central to the design of the Heritage Keepers programme and essentially provide a contextual backdrop for the programme's work. Highlighting the significance of place as a lens through which stewardship actions can be initiated, is further considered in terms of the role which connecting participants through networks can play in enhancing active citizenship behaviours. These ideas are further explored and developed throughout this paper.

The Heritage Keepers Programme

Burrenbeo's Heritage Keepers programme stems from over a decade's experience working with schools and communities on place-based learning initiatives. Heritage Keepers is an educational programme, developed by Burrenbeo that essentially supports the development of community-based actions (for specific content delivered as part of the programme see Table 1)[3]. The programme is built around principles of discovery and learning, critical thinking, problem solving, planning and project support to ensure that programme outcomes are achieved. It incorporates the key elements of care, knowledge, agency, and collective action (as discussed in the previous section). The following discussion engages the Heritage Keepers programme, identifying key learnings as they emerged from a piloted national delivery of the programme. Discussion incorporates details on programme outcomes, the impact of scaling-up actions (from local to national contexts), and the resulting guiding principles for activists, practitioners and academics looking to support (similar) community stewardship projects.

Heritage Keepers emerged from the delivery experiences of place-based learning programmes at Burrenbeo in the Burren region. The programme was piloted nationally in 2022 (in partnership with the Heritage Council) and represents a national initiative to support schools and communities to take local action for heritage (among other associated themes). Heritage Keepers consists of a series of workshops for the development of a local action plan. Table 1 below provides an outline of the programme's content. Following the completion of workshops, groups can then apply for funding to complete their plans and during the process of completion receive ongoing mentoring from Burrenbeo. In the context of the Heritage Keepers programme the term group refers to a multitude of diverse collectives and group representatives. Groups included: primary and post primary (secondary) school classes (often represented by class teachers); adults who represented an already established community group (for example a local Tidy Towns group); and adult representatives who had come together to engage collective action specifically to complete the Heritage Keepers programme. In other instances, community groups sent representatives to the workshops to learn about programme delivery; these representatives became newly trained facilitators or teachers who then returned to their communities and delivered the programme in their locale (similar to train-the-trainer initiatives). Workshops associated with the programme are 10 hours in length (usually delivered once a week, over five two-hour sessions) and were delivered to primary school, post-primary (secondary) school and adult community groups, both online and in person, as well as to teachers and facilitators (who then returned to their own community setting and delivered the programme). Interested groups and their associated representatives were invited to complete an expression of interest form to essentially apply to participate in the programme. This call was promoted nationally through various media channels and also disseminated through established networks and contacts. In the first instance, numerous expressions of interest were received for the pilot. There were 91 applications responding to the first expression of interest call for participation; 32 from adult

[3]   A detailed overview of the evolution of Burrenbeo learning programmes can be found in Bird (2024).

community groups, 16 from primary schools, 10 from post-primary (secondary) schools and 33 from teachers and facilitators who had delivered the programme in their own communities following training. Capacity issues necessitated a lottery system for the selection of participants from those who had successfully completed the expression of interest form. There was a total of 5 places for primary school classes, 5 for post-primary (secondary) school classes, 10 for adult community groups (with each group comprising 6-10 members) and 35 for teachers and facilitators who were trained by Burrenbeo representatives to deliver the programme in their own communities.

As a result of the lottery process, participants for the pilot were located across Ireland with community groups from 18 counties in both urban and rural settings represented. During the workshops, community groups and/or their representatives considered their local place, were introduced to resources where they could learn more about their local built, natural, and cultural heritage, questioned how they wanted their place to be in the future, and finally, planned actions to facilitate this visioned future. Workshops are engaging and interactive, aiming to share a concept (community stewardship) and a process around community engagement with heritage and the environment to work collaboratively on identifying and addressing concerns in participants' local areas. Essentially, successful action plans developed through the workshops, by workshop participants (rather than people coming to the programme with definite actions already in mind).

The following table provides an overview of content for the Heritage Keepers workshops.

Table 1 Content overview of the Heritage Keepers Programme. Each component is presented as a 2-hour workshop.

The Heritage Keepers Programme
1. Introduction and My Place This workshop introduces participants to the Heritage Keepers approach. Participants begin to consider the layers of their place, what they like or dislike about their place and the local assets which exist within their place.
2. Culture and the Past Using a variety of online resources participants investigate what life was like in their place in the past. They learn about ancestral legacy, the stories and folklore, and monuments and buildings in their place.
3. Biodiversity and Land Use With a focus on natural heritage participants look to identify changes in land use and local environments, and are encouraged to think about what they can do to protect biodiversity locally.
4. The Future Having considered the present day contexts of their places participants look to the future to think through how they would like their future places to exist. Initial ideas for action plans are discussed and a framework for moving them forward is shared by the workshop facilitator.
5. Planning for Action Participants look to finalise local action plans as well as discussing how to engage the wider community and sharing some inspiration from actions already taken.

Workshop content (Table 1) drew from a number of areas of expertise; firstly content was developed based on the lead author's expertise (both in terms of delivering place-based learning initiatives and in relation to knowledge of the Burren region); secondly content was developed as a result of engagement with practical training opportunities engaged by staff, in addition to being informed by academic and practitioner literature in this field (e.g. Smith & Sobel (2010) and Sobel (2017)). All workshops were facilitated by the Burrenbeo Trust team. The workshops were designed with active learning methodologies, involving facilitator-led instruction followed by group and/or group representative engagement in various tasks (discussion, debate, introduction and utilisation of online and local resources and information). While the content deliberately focuses on consideration of local places through a heritage lens, by their nature these topics allow for wider consideration of more global issues, with the programme creating a space for discussion of, and projects relating to, climate change and sustainability more broadly.

The objectives of the Heritage Keepers programme pilot include:

- Provide place-based learning opportunities and ongoing mentorship to participating community groups across Ireland.
- Stimulate local community stewardship actions within these communities through micro grants of up €1000.
- Empower communities to become local leaders through local 'Place Day' events where they show their work to others.
- Develop and implement a Theory of Change[4] for assessment and evaluation of the Heritage Keepers programme.
- Make recommendations for the wider implementation of learnings from the pilot project.
- Build a place-based learning community in Ireland which works to inform policy, research, and good practice.

The anticipated outcomes for programme participants included: enhanced connection to, and pride of, local place; awareness of and within local place (including heritage, community, environmental components); ability to research and learn about local place; understanding risks, threats and opportunities in relation to local heritage and environment (and more global links); empowerment around action on local issues; and increased local community stewardship. These outcomes were anticipated during the planning stages for the Heritage Keepers programme using the Theory of Change approach. A Theory of Change is a comprehensive and dynamic tool frequently used in programme planning, implementation, and evaluation (Anderson & Harris, 2005). It goes beyond merely outlining the desired outcomes of a programme or intervention; rather it delves into the underlying assumptions and causal mechanisms that drive change. By systematically articulating how and why a programme works to achieve its desired outcomes, it enables stakeholders to make informed decisions and maximise

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[4] A Theory of Change looks to explain how a change (of behaviour, attitude, in knowledge etc.) will occur. It considers how and why a programme works to achieve the desired outcomes (Anderson & Harris, 2005) and is discussed in the next paragraph in the context of how this works for the Heritage Keepers programme.and adhered to the standard processes and practices associated with this type of research.

the impact of their interventions. For a small organisation like Burrenbeo, with limited resources and capacity, the approach provides a useful framework for building effective programmes. The Theory of Change approach was used to develop the Heritage Keepers programme in conjunction with external evaluators, outlining projected programme inputs from Burrenbeo, in addition to anticipated outcomes for participants. Developing the Theory of Change in advance of the programme also provided structure for the programme evaluation (assisted by and through engagement with external evaluators from the programme's inception), assessing the degree to which projected outcomes were achieved, as well as the identification of unanticipated outcomes.

Following completion of the workshops follow up support (through email, phone contact, and dedicated online Q&A sessions) for any of the community groups and/or their representatives was available to help finalise 'PLACE plans' and complete funding applications. Adapted from the well-known SMART plan (Doran, 1981; for more recent discussion see: Addison *et al.*, 2020, Bjerke & Renger, 2017), identifying specific, measurable, achievable, relevant, and time-bound objectives when planning, PLACE plans are a simple tool developed by Burrenbeo for all participating community groups to advance their local action plan. While addressing similar planning elements to the SMART plan, Burrenbeo felt a more specific and relevant acronym would help groups relate to the process. The PLACE plan acronym developed by Burrenbeo refers to Project, Logic, Activities, Committee and Evaluation, and represent the headings that community groups must address as part of their action plan.

An important element of the programme was the delivery of micro grants (if required) to facilitate the completion of actions outlined through PLACE plans. Funding up to a maximum of €1000 was provided to any group that applied, based on pro forma invoices (from a maximum of three suppliers); this ensured that community groups were not obliged to cover any costs of implementing the PLACE plan up front. Many community groups may not have bank accounts or access to funds, and so this is vital as it ensures transparency and efficiency around finances (i.e. grants are not sent to individual group member bank accounts and therefore individuals do not have to cover costs and be reimbursed later). More often than not community grants work from the principle of reimbursement based on receipts, this is problematic. The micro grant scheme requires a simple one-page application, this was a conscious effort to keep the required administration for the organisation and applying community groups to a minimum. Groups were also encouraged to take local fieldtrips to the sites they had been learning about and funding was made available for this. Facilitation of local fieldtrips was deemed important in recognition of a complete place-based learning approach, where the groups also got to learn 'in' their place as well as learning 'about' and 'for' their places. The fieldtrips allowed participants all over Ireland to visit and learn about the local sites of significance to them. In total 19 grants were awarded in 2022, totalling €15,429.83, in addition to four grants for fieldtrips totalling €1400. This was funded by the Heritage Council through the partnership agreement.

A synopsis of the stages involved in the Heritage Keepers methodology is included in Figure 1 below.
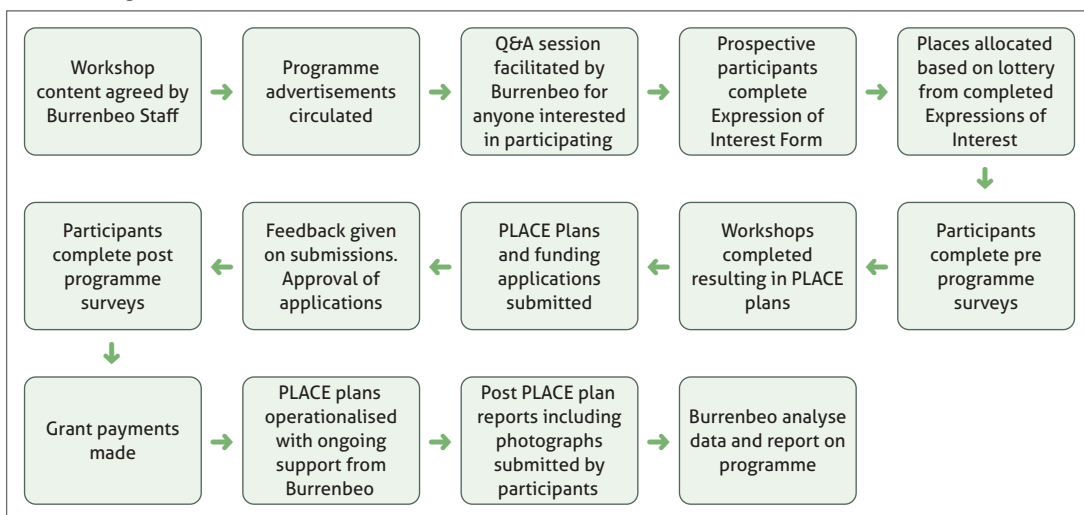

Figure 1. Stages involved in Heritage Keepers Methodology

The final element of the programme was the Heritage Keepers inclusion in the 'Communities for Heritage' networking and skills day which was hosted by Burrenbeo in Corofin, Co. Clare during National Heritage Week on the 20th of August 2022. Over the course of a day, community groups from around Ireland came together to meet and learn from each other. While the original intention for Heritage Keepers was that each community would hold their own celebration day (a Place Day), it became apparent that while some still did this, it was not practical to expect every community to do it due to external pressures around time and availability. Ultimately it emerged (reflecting the research of Peçanha Enqvist *et al.* (2018) around a sense of collective action), that the community groups were particularly interested in meeting other groups and sharing their stories and prioritised this by attending the 'Communities for Heritage' event over the individual Place Days.

Programme Evaluation and Data Collection

Given that the Heritage Keepers programme was delivered as a national pilot, programme evaluation was necessary to ensure future learning. The evaluation of Heritage Keepers engaged two sources. Firstly, Burrenbeo staff working on the programme provided feedback via focus group. The four staff members involved in facilitation shared and discussed the elements of the programme they perceived as successful and those that were less so. Secondly, data on the experience of community groups and their representatives were gathered through a pre- and post-programme survey. Group representatives were asked a series of questions in relation to their experience of the programme, to assess if programme outcomes had been achieved[5]. The evaluation process was also informed by consultation with an external evaluator who assisted in the development of the programme (as per the approach advocated by a Theory of Change) and survey tools[6].

Pre- and post-programme surveys were designed to evaluate the Heritage Keepers programme. Given the diverse community groups engaging the programme (both young and old), one survey was designed for distribution to adults, and the other was created for children and young people. We prioritised informed consent, voluntary participation and anonymity when conducting the surveys. The survey for young people had less questions and used adapted and accessible language. There was a combination of online and paper completions. The surveys included closed and open-ended questions, asking participants to indicate their feelings, knowledge, and actions in relation to local heritage, community and environment using Likert scale questions and open responses. Questions included asking participants to rate the degree to which they feel part of their local community, are proud of where they live, are motivated to take action on local issues, are overwhelmed by climate change and biodiversity loss, and to indicate their level of knowledge on heritage in their local area, effectively engaging local community and accessing funding for a community project. In total, 252 participants provided data at the pre-programme stage, and 138 participants gave responses at the post-programme stage. The drop in responses was mainly due to difficultly getting the online participants to complete the post-programme surveys.

Table 2 Summary of key characteristics from the Heritage Keepers national pilot

Expressions of interest received from participants		91
Participants	5 x Primary Schools (4 in person & 1 online) 4 x Secondary Schools (3 in person & 1 online) 10 x Community Groups (3 in person & 7 online) Facilitators/Educators (25 in person & 9 online) **Total**	119 participants 73 participants 64 participants 34 participants **287**
Programme delivery hours	90 hours schools + 70 hours adults = 160 hours total	
Project support hours (email and phone communication, and online Q&A sessions)		c. 35
PLACE plans submitted		24
Grants awarded (all that applied were awarded)		19
Pre programme surveys completed	Primary School Secondary School Community Groups Facilitators/Educators **Total**	84 60 81 27 **252**
Post programme surveys completed	Primary School Secondary School Community Groups Facilitators/Educators **Total**	38 42 31 27 **138**
Attendees at Communities for Heritage event		88

[5] For discussion on the evaluation of place-based learning see Bird *et al.* (2022).

[6] Please note this work received ethical approval from the University of Galway's Research Ethics Committee and adhered to the standard processes and practices associated with this type of research.

Results

A detailed programme evaluation report was completed and has informed subsequent iterations of the Heritage Keepers programme. The evaluation combined feedback and observations from participating community groups and staff from Burrenbeo. The quantitative data (based on the Likert scale responses) were graphed to compare the pre and post Heritage Keepers survey responses. The qualitative data were analysed using iterative coding based on the constant comparative method (Fram, 2013), allowing for in-depth exploration and comparison of the data to identify any themes arising. Consideration of the desired programme outcomes and whether these were achieved formed the basis of discussion of the evaluation results. For the purposes of this paper, the focus is on the final two outcomes that focus on stewardship actions that the programme hoped to achieve: empowerment around action on local issues and increased local community stewardship.

Anticipated programme outcomes for community groups engaging the Heritage Keepers programme included: enhanced connection to, and pride of, local place; awareness of components of local place (heritage, community, environment); ability to research and learn about local place; understanding of risks, threats and opportunities in relation to local heritage (in global perspective); empowerment around action on local issues; and increased local community stewardship. As discussed above, the first four outcomes were measured using a comparison between a pre (n=252) and post-programme (n=138) survey. The resulting data was read as a single set of responses, combining all community group feedback and observations. We acknowledge that this approach is not without its limitations, it essentially presumes homogeneity between the community groups (groups that include children, young people and adults – a diversity of voices and life stages) when this is not necessarily the case. However, in the context of the Heritage Keepers pre- and post-programme surveys, when the data was analysed, there were no significant differences between the adult responses and those of children and young people. As a result, the presented data relates to the Heritage Keepers programme in its entirety.

The analysis and evaluation of this data ultimately reveals little difference in pre- and post-programme ratings of participants in relation to several of the desired outcomes particularly around enhanced connection to and pride of local place, perhaps pointing to a self-selection effect amongst the participants. The difficulties around evaluating place-based initiatives has been considered previously (Heery *et al.*, 2018), as has the self-selection bias in programme outcome evaluation (Meyer *et al.*, 2019). For example, in this context, one question asked participants about their level of pride in their local area. On reflection, it is likely that people who chose to take part in Heritage Keepers were already proud of where they lived and wanted to help their communities.

However, there were two areas where the results did show a difference between pre and post-programme surveys. The first is around awareness of components of local place (heritage, community, and environment). Across the various community group representatives completing the post-programme survey, 52% of participants reported

that their knowledge had increased as a result of their participation. In particular, 79% of those responding to the survey indicated that they had learned a significant amount about resources for finding out more about heritage in their local area. As illustrated in Figure 2 below, the majority of survey respondents had a positive experience of the Heritage Keepers programme. Respondents were asked to indicate on a scale from one to five how much they agreed with the statements 'I found the programme informative and relevant', 'I found the programme enjoyable' and 'I would recommend this programme to a friend'. As indicated below, over 80% of all participants strongly agreed that the programme was informative, enjoyable, and they would recommend Heritage Keepers to a friend.

Figure 2 Participant Response on their General Experience of Heritage Keepers
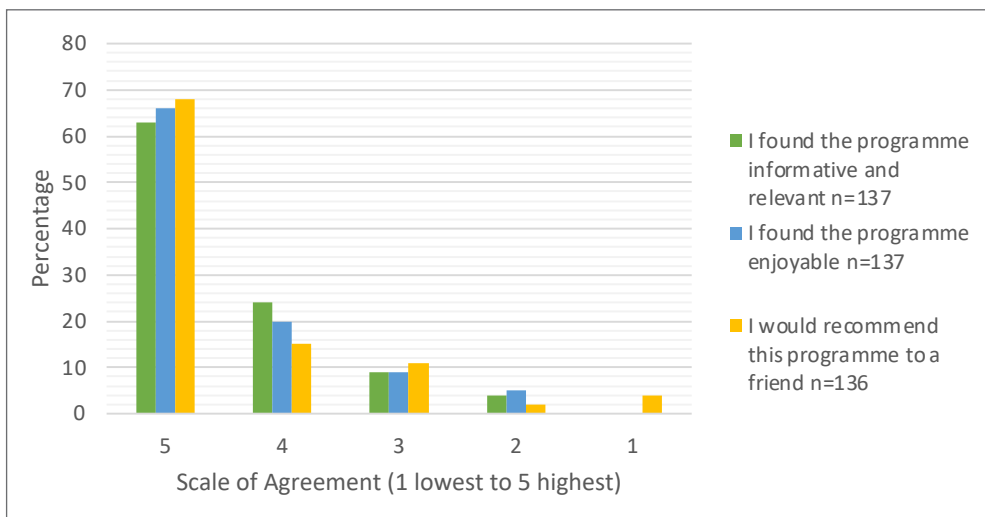
Respondents were also asked to comment specifically on elements of the programme which they liked or disliked. The responses were analysed and a number of themes were identified. The elements participants liked included:

● Discovering resources for learning about their local place
● Fieldtrips/being outdoors/being in their local place
● All aspects of the course
● Interacting/meeting others/learning from others
● Planning for action/ working in groups
● Learning about/considering their local place.

In contrast, the main themes identified in relation to elements people didn't like included:

● Preferring in person delivery/having issues with internet connection
● The level of engagement – too much writing, class, listening
● Programme not meeting their expectations.

Central to Heritage Keepers is the empowerment of communities so that they feel motivated and supported to take meaningful local actions. This is done through the workshops, provision of micro financing and project support. The actions undertaken by the groups clearly demonstrate that this was achieved. The resulting actions completed by the diverse groups included an extensive oral history recording project, a local heritage trail developed by school children, publications on local legends, monuments and biodiversity, and a day long community celebration of a local hero. The full list of projects is included in Table 3 below. Of the 24 submitted PLACE plans, only those that requested and were granted funding were required to complete a report on their actions so it is possible that the other 5 groups did also go on to complete their planned actions but this cannot be verified (something which will be addressed in subsequent programme iterations, resulting in a more complete record of the actions undertaken and conditions necessary for such action). All submitted grant applications were assessed by two Burrenbeo staff members. The applications were considered in conjunction with the details included in the corresponding PLACE plan and in relation to guidelines around responsible procurement and value for money which had been supplied to all community group applicants.

The projects, planned and delivered by the schools and communities, display a range of meaningful actions undertaken for the conservation and celebration of Ireland's heritage. While workshop sessions allowed for exploration, learning and careful consideration of the possibilities and issues which existed in local areas, the provision of project support (through email and phone communication, and online Q&A sessions) and microfinancing proved vital elements in the empowerment of groups who ultimately carried out the community stewardship activities. Participants also reported an increase in local community stewardship, with participants indicating that they have engaged with other people taking action to improve their local environment in the last month. This rose from 31% in the pre-survey to 52% in the post programme survey; those reporting a 'not at all' response to the same questions dropped from 10% to 2%.

Table 3 Projects completed by Heritage Keepers Groups

	County	Grant Amount	Details
Community Group	Tipperary	€980	Build two wooden benches and planters in heritage area of village.
Community Group	Clare	€914	Local wildlife survey and workshops to school and community on same. Brochure produced.
Community Group	Cork	€1,000	Oral history project (including training workshops).
Community Group	Waterford	€999.99	Fieldtrip for 6 local primary schools to local farmers.
Community Group	Roscommon	€750	Design and installation of interpretive signage for local flora and fauna.
Community Group	Wexford	€998.80	Design and hand build a small rustic shelter for local viewing point.
National School	Galway	€760	Write, illustrate and print a local history booklet.
National School	Mayo	€916	Map the crowsfeet / benchmarks in local town and design and print trail map of same.
National School	Waterford	€192.15	Design heritage trails and create trail brochure.
Secondary School	Roscommon	€219.08	Make wooden bird boxes and bat boxes and install them on schools grounds.
Facilitator	Kilkenny	€910.31	Record historic stone carvings and design and publish booklet.
Facilitator	Cork	€768.75	Design and print local natural heritage booklet.
Facilitator	Roscommon	€916.35	Design and print pull ups detailing local environment.
Facilitator	Tipperary	€644.40	Design, print and install 3 heritage information panels.
Facilitator	Clare	€760	Design a heritage trail with commissioned drone pictures and publish online.
Facilitator	Clare	€1,000	Design and install information signage at local heritage site.
Facilitator	Clare	€700	Hold commemoration day for local historic figure.
Facilitator	Clare	€1,000	Publish local cultural heritage material and print local heritage map.
Educator	Galway	€1,000	Create a new school garden.
	Total	**€15,429.83**	

'Communities for Heritage' Event Evaluation

The Heritage Keepers programme cycle concluded with a wider celebration of community volunteering and heritage action with the 'Communities for Heritage' event (August 2022), held as part of National Heritage Week. Community groups from around Ireland were invited to come together to learn, network and showcase the actions which are and can be taken on local heritage projects. The Heritage Keepers community groups were given an opportunity to speak about the projects they had undertaken, sharing their experience with others, networking and learning together.

Participant feedback on the event (obtained post event via an online survey) indicated that all participants found the event useful for networking; 96% found that the event had increased their knowledge of heritage and community action and 96% would attend a similar event in the future. The 'Communities for Heritage' event has particular significance when considered in terms of the research around a feeling of collective action. For groups that were participating remotely, this event brought them together to share their experience and learn from others. The importance of a sense of collective action as mentioned earlier in this paper, is something we subsequently return to in the discussion section. Based on the piloting experience outlined above, in 2023 the Heritage Keepers programme delivery concentrated on primary schools, youth groups and community groups and a total of 45 groups were invited to participate in the workshops beginning in January 2023.

Discussion

There are a number of areas for discussion arising from the development and delivery of the Heritage Keepers programme. Building on years of local community stewardship initiatives, piloting the scaling-up of the Heritage Keepers programme for a national audience, provides useful learnings for researchers and others looking to engage similar initiatives. The following section includes a discussion on the importance of developing organisational knowledge, before considering how this might inform, and allow for, the evolution and adaptation required to scale-up similar educational, community focused programmes. The discussion then moves to initial findings from this experience in relation to the conditions required for supporting community stewardship, particularly around ideas for providing appropriate knowledge, supporting agency and the power of collective action.

Regarding the experience of adapting and scaling-up a local initiative to a national level, Burrenbeo has considerable experience coordinating and delivering local education programmes. However, the Heritage Keepers national pilot presented questions in terms of how best to achieve the desired outcomes on a national scale given the organisation's capacity and resources. Would Burrenbeo staff deliver the programme or train others to do so? Would Burrenbeo staff travel to locations or deliver online? How much post workshop support would groups require to complete their action projects? The learnings from the pilot and the breadth of delivery methods and participants engaged, resulted in sufficient

data to determine the best course of action for future iterations (for example, in person, online or blended delivery; suitability for primary or secondary school; suitable times for community delivery). The importance of and potential learnings from undertaking pilot programmes is something which is recognised across many fields (Malmqvist *et al.*, 2019) and beginning with a pilot is an approach we would advocate if considering scaling-up.

It is worth noting that such scaling-up was possible due to the development of organisational knowledge over time. Organisational knowledge creation is a dynamic ongoing process, and in multidisciplinary organisations, such as Burrenbeo, represents one of its most valuable resources (Fong, 2003). The education programmes from Burrenbeo had already been through a number of iterations, from Ecobeo to *Áitbheo* before Heritage Keepers was developed. Over this time, staff had also been engaged with a number of research projects. This experience informed the design and development of the Heritage Keepers programme. While impossible to measure, it is unlikely that the programme and all the related processes and considerations, could have been arrived at when Burrenbeo's original education programmes were being developed. These learnings are unpacked in greater detail in Bird *et al.* (2022), which further emphasises the need for long-term evaluation and programme development. It is perhaps even more significant to allow for more long-term, longitudinal programme development when considering scaling-up initiatives, so that sufficient time is allowed for knowledge creation to occur.

As discussed by List (2022), significant scaling-up of an idea can require and result in a degree of dilution from the original. The experience of scaling-up the Heritage Keepers programme resulted in evolving and adapting existing models and initiatives to meet the expanded reach – both geographically and numerically. Moving from local delivery to a small number of participants to a national delivery with a more diverse cohort, required careful consideration. Deciding what was essential, what could be lost and how the programme could best be delivered at scale has been fundamental to the piloting of Heritage Keepers (and reflects the influence of a Theory of Change approach). The trialling of multiple delivery methods then provided a basis for determining which was most effective. Finally, consideration of the evaluation outcomes will inform subsequent programme iterations. As a result, the content is now adaptable to any audience, materials are designed to ensure efficiencies of time and resources, and the processes for participants (from initial expression of interest, to application, workshop participation, PLACE plan and grant submission, and project completion) have been streamlined to an extent that means the outcomes, expectations, and timeframe are realistic and achievable.

The Heritage Keepers programme now has all the elements described by Peçanha Enqvist *et al.* (2018) as being required to ensure community stewardship is achievable. Participating community groups have been seen to care sufficiently in volunteering their time to participate (and ultimately complete their action projects), but even when this is not a choice they have made (particularly for school children), the programme allows them to consider their own personal feelings around their local place and it's heritage. Significantly, the programme also highlights the potential for participating community groups to achieve change. This is particularly noteworthy if considered alongside the

literature in relation to climate anxiety discussed in the opening sections (Hickman *et al.*, 2021; Gidron & Hall, 2018; Panu, 2020). Through participation, and the completion of actions that address issues broadly relating to climate and sustainability (particularly around biodiversity loss), those that completed their action projects felt like their actions could make a difference. The knowledge gained through participation in the Heritage Keepers programme is locally relevant and delivered in a way that is easily understood by all. To this end, a supporting resource book and video tutors on some of the websites used (such as www.heritagemaps.ie and www.duchas.ie) have also been developed. For many participating community groups, the Heritage Keepers programme will merely be the introduction to investigating local built, natural and cultural heritage, with capacity for groups and their representatives to continue to learn more themselves. Others may have significant knowledge already in one or more areas included in the programme but may not previously have considered them holistically. The Heritage Keepers programme acknowledges the various types of knowledge within communities and supports this through conscious provision of new knowledge, which is practical, relevant and accessible. This intersection of technical and other forms of knowledge is something which environmental organisations often negotiate (Eden *et al.*, 2006).

The importance of agency, which is the final element discussed by Peçanha Enqvist *et al.* (2018), has been further highlighted in the piloting of this programme. While Burrenbeo's previous education programmes suggested why people should undertake local actions, there was not sufficient (or at times any) support for them to do so. Heritage Keepers, in providing a structure, ongoing support and finances, has overcome this obstacle. When considered in terms of community stewardship, this speaks to the role that additional supports play in moving people from attitudes to actions. This is a topic which has been widely considered in terms of both moving from research to action (Van Kerkhoff & Lebel, 2006), the value-action gap between policy and local action (Blake, 1999) and approaches to encouraging pro-environmental behaviours (Grilli & Curtis, 2021). From our experience, the additional support provided when groups were completing their actions meant that almost all groups were able to complete their actions. Despite the diverse and eclectic participating community groups (some well-established in their locality and others in their infancy), with guidance, all were able to develop an achievable plan based on their specific capacities. The positive effect of the supports provided by the Heritage Keepers structure may increase over time, as the programme network continues to expand and participants are inspired by both the actions completed, as well as the growing sense of collective efficacy where more is achieved by virtue of collective action. The feedback from the 'Communities for Heritage' event (and the value which participants placed on this opportunity) further emphasises this point. This idea of a 'movement' or network being a significant element in strengthening environmental actions is acknowledged (Saunders, 2013) and warrants consideration for those looking to achieve similar outcomes.

Conclusion

Considering the discussion and results in relation to the possible outcomes of place-based learning within community stewardship initiatives (useful for similar programmes), the following observations arise. The Heritage Keepers programme has been shown to successfully empower community stewardship. The combination of workshops, ongoing support and microfinancing allows communities to carry out meaningful actions which might otherwise have been unachievable. The sense that groups are participating in something more than just their own action and that they can learn from and share with other groups is significant. There is evidence supporting the role that networks, peer learning and discussion groups, play in encouraging behavioural change around conservation and heritage issues (Toomey, 2023); this was also evident through the Heritage Keepers programme. This is significant for others looking to implement similar programmes or achieve similar outcomes reflecting the importance and power of bringing participants together to learn from each other through collective action.

The concept of agency stands as a pivotal consideration in any community stewardship undertaking. The Heritage Keepers programme plays a crucial role in nurturing agency by providing a structured framework for discussion, decision-making processes, and the requisite support for translating decisions into actions. Nevertheless, it is important to acknowledge that in the broader context of scaling-up, it is the agency element which imposes limitations on the achievable scale. The capacity to meet the demands of all the groups wishing to participate in a programme such as Heritage Keepers is constrained by the availability of funds for microfinancing, as well as the constraints of staff capacity associated with providing adequate support to groups throughout the project completion process. In the context of community stewardship and scaling-up, careful consideration of developing and supporting participating group's agency is vital.

This paper unpacks a range of ideas relating to scaling-up community based educational programmes. We also point towards the need for further research on themes exploring people's willingness to participate, the legacy and sustainability of actions catalysed by participation, and the broader role of supporting organisations and structures in anchoring community action. Community stewardship has the potential to address a wide range of issues. Engaging and empowering communities around local concerns has benefits for communities and their localities. The experience of the pilot scaling-up of Heritage Keepers has been very informative for community stewardship initiatives more broadly. Ultimately, the programme framework outlined throughout this paper has the capacity to be replicated and employed across a wide range of settings, with the central aim of achieving community stewardship outcomes at a variety of scales and over a multitude of diverse contexts.

Acknowledgement

References

Addison, P.F., Stephenson, P.J., Bull, J.W., Carbone, G., Burgman, M., Burgass, M.J., Gerber, L.R., Howard, P., McCormick, N., McRae, L. and Reuter, K.E., (2020). Bringing sustainability to life: A framework to guide biodiversity indicator development for business performance management. *Business Strategy and the Environment*, 29(8), pp.3303-3313.

Altman, I. and Low, S.M. eds., (2012). Place attachment (Vol. 12). Springer Science & Business Media.

Anderson, A. and Harris, E. (2005). An introduction to theory of change. *The Evaluation Exchange*, 11(2), p.12.

Augé, M., 2020. Non-places: An introduction to supermodernity. Verso Books.

Bandura, A. (2000). Exercise of human agency through collective efficacy. *Current Directions in Psychological Science*, 9(3), 75–78.

Bennett, N. J., Whitty, T. S., Finkbeiner, E., Pittman, J., Bassett, H., Gelcich, S., & Allison, E. H. (2018). Environmental Stewardship: A Conceptual Review and Analytical Framework. *Environmental Management*, 61(4), 597–614. https://doi.org/10.1007/s00267-017-0993-2

Bird, Á., 2024. Place-based learning initiatives in the Burren. In Encountering Ideas of Place in Education (pp. 65-77). Routledge.

Bird, Á., Fahy, F., & Reilly, K. (2022). Making evaluation work for the practitioner evaluator: experience from the field of environmental education. *Environmental Education Research*, 28(5), 715–734. https://doi.org/10.1080/13504 622.2022.2036324

Bjerke, M.B. and Renger, R., 2017. Being smart about writing SMART objectives. Evaluation and program planning, 61, pp.125-127.

Blake, J. (1999). Overcoming the "value-action gap" in environmental policy: Tensions between national policy and local experience. *Local Environment*, 4(3), 257–278. https://doi.org/10.1080/13549839908725599

Carnell, R., & Mounsey, C. (2022). *Stewardship and the Future of the Planet; Promise and Paradox*. https://doi.org/https://doi.org/10.4324/9781003219064

Carrus, G., Scopelliti, M., Fornara, F., Bonnes, M. and Bonaiuto, M. (2014). Place attachment, community identification, and pro-environmental engagement. In *Place attachment: Advances in Theory, Methods and Application,* (pp. 154–164).

Corcoran, M. P., Gray, J., & Peillon, M. (2009). Making Space for Sociability: How Children Animate the Public Realm in Suburbia. *Nature & Culture*, 4(1), 35–56. https://doi.org/http://dx.doi.org/10.3167/nc.2009.040103

Devine-Wright, P. (2009). Rethinking NIMBYism: The role of place attachment and place identity in explaining place-protective action. *Journal of Community and Applied Social Psychology*, 19(6), 426–441. https://doi.org/10.1002/casp.1004

Devine-Wright, P. (2013). Think global, act local? The relevance of place attachments and place identities in a climate changed world. *Global Environmental Change*, 23(1). https://doi.org/10.1016/j.gloenvcha.2012.08.003

Diener, A.C. and Hagen, J., (2022). Geographies of place attachment: A place-based model of materiality, performance, and narration. *Geographical Review*, 112(1), pp.171-186.

Doran, G.T., (1981). There's a SMART way to write management's goals and objectives. *Management review*, 70(11), pp.35-36.

Eden, S., Donaldson, A., & Walker, G. (2006). Green groups and grey areas: Scientific boundary-work, nongovernmental organisations, and environmental knowledge. *Environment and Planning A*, 38(6), 1061–1076. https://doi.org/10.1068/a37287

Fong, P. S. W. (2003). Knowledge creation in multidisciplinary project teams: An empirical study of the processes and their dynamic interrelationships. *International Journal of Project Management*, 21(7), 479–486. https://doi.org/10.1016/S0263-7863(03)00047-4

Fram, S. M. (2013). The Constant Comparative Analysis Method Outside of Grounded Theory. In *The Qualitative Report* (Vol. 18, Issue 1). http://www.nova.edu/ssss/QR/QR18/fram1.pdf

Gallagher, M. F., & Cattelino, J. (2020). Youth, climate change and visions of the future in Miami. *Local Environment*, *25*(4), 290–304. https://doi.org/10.1080/13549839.2020.1744116

Gidron, N., & Hall, P. A. (2018). *Populism as a Problem of Social Integration*.

Grilli, G., & Curtis, J. (2021). Encouraging pro-environmental behaviours: A review of methods and approaches. In *Renewable and Sustainable Energy Reviews* (Vol. 135). Elsevier Ltd. https://doi.org/10.1016/j.rser.2020.110039

Gruenewald, D. A. (2003). Foundations of place: A multidisciplinary framework for place-conscious education. *American Educational Research Journal*, *40*(3), 619–654. https://doi.org/10.3102/00028312040003619

Haggard, P., & Tsakiris, M. (2009). *The Experience of Agency Feelings, Judgments, and Responsibility*.

Heery, L., Naccarella, L., & McKenzie, R. (2018). 'Improvement focused' evaluation of place-based initiatives: An examination of three methodologies. *Evaluation Journal of Australasia*, *18*(3), 165–182. https://doi.org/10.1177/1035719X18793704

Hickman, C., Marks, E., Pihkala, P., Clayton, S., Lewandowski, E., Mayall, E. E., Wray, B., Mellor, C., & van Susteren, L. (2021). Climate anxiety in children and young people and their beliefs about government responses to climate change: a global survey. In *Articles Lancet Planet Health* (Vol. 5). www.thelancet.com/

Khadka, A., Li, C. J., Stanis, S. W., & Morgan, M. (2021). Unpacking the power of place-based education in climate change communication. *Applied Environmental Education and Communication*, *20*(1), 77–91. https://doi.org/10.1080/1533015X.2020.1719238

Kyle, G. and Chick, G., 2007. The social construction of a sense of place. *Leisure sciences*, *29*(3), pp.209-225.

Lewicka, M. (2011). Place attachment: How far have we come in the last 40 years? In *Journal of Environmental Psychology* (Vol. 31, Issue 3, pp. 207–230). https://doi.org/10.1016/j.jenvp.2010.10.001

List, J. A. (2022). *The Voltage Effect*. Currency.

Lucas, M. A. (1972). *Environment and Environmental Education: Conceptual Issues and Curriculum Implications*. The Ohio State University.

Lumber, R., Richardson, M., & Sheffield, D. (2017). Beyond knowing nature: Contact, emotion, compassion, meaning, and beauty are pathways to nature connection. *PLoS ONE*, *12*(5). https://doi.org/10.1371/journal.pone.0177186

Malmqvist, J., Hellberg, K., Möllås, G., Rose, R., & Shevlin, M. (2019). Conducting the Pilot Study: A Neglected Part of the Research Process? Methodological Findings Supporting the Importance of Piloting in Qualitative Research Studies. *International Journal of Qualitative Methods*, *18*. https://doi.org/10.1177/1609406919878341

Masterson, V. A., Stedman, R. C., Enqvist, J., Tengö, M., Giusti, M., Wahl, D., & Svedin, U. (2017). The contribution of sense of place to social-ecological systems research: A review and research agenda. *Ecology and Society*, *22*(1). https://doi.org/10.5751/ES-08872-220149

Meyer, M., Neumayr, M., & Rameder, P. (2019). Students' Community Service: Self-Selection and the Effects of Participation. *Nonprofit and Voluntary Sector Quarterly*, *48*(6), 1162–1185. https://doi.org/10.1177/0899764019848492

Orr, D. (1992). *Ecological literacy.* SUNY Press.

Panu, P. (2020). Anxiety and the ecological crisis: An analysis of eco-anxiety and climate anxiety. *Sustainability (Switzerland)*, *12*(19). https://doi.org/10.3390/SU12197836

Peçanha Enqvist, J., West, S., Masterson, V. A., Haider, L. J., Svedin, U., & Tengö, M. (2018). Stewardship as a boundary object for sustainability research: Linking care, knowledge and agency. In *Landscape and Urban Planning* (Vol. 179, pp. 17–37). Elsevier B.V. https://doi.org/10.1016/j.landurbplan.2018.07.005

Pereira, L., Asrar, G. R., Bhargava, R., Fisher, L. H., Hsu, A., Jabbour, J., Nel, J., Selomane, O., Sitas, N., Trisos, C., Ward, J., van den Ende, M., Vervoort, J., & Weinfurter, A. (2021). Grounding global environmental assessments through bottom-up futures based on local practices and perspectives. *Sustainability Science*, *16*(6), 1907–1922. https://doi.org/10.1007/s11625-021-01013-x

Pickering, G. J., Schoen, K., & Botta, M. (2021). Lifestyle decisions and climate mitigation: current action and behavioural intent of youth. *Mitigation and Adaptation Strategies for Global Change*, *26*(6). https://doi.org/10.1007/s11027-021-09963-4

Relph, E., (2008). Place and Placelessness. 2nd reprint with new preface. London: Pion.

Richardson, M., (2023). Reconnection: Fixing our Broken Relationship with Nature. Pelagic Publishing Ltd.

Rousell, D., & Cutter-Mackenzie-Knowles, A. (2020). A systematic review of climate change education: giving children and young people a 'voice' and a 'hand' in redressing climate change. *Children's Geographies*, *18*(2), 191–208. https://doi.org/10.1080/14733285.2019.1614532

Saunders, C. (2013). *Environmental Networks and Social Movement Theory*. Bloomsbury Academic.

Schweizer, S., Davis, S., & Thompson, J. L. (2013). Changing the conversation about climate change: A theoretical framework for place-based climate change engagement. *Environmental Communication*, *7*(1), 42–62. https://doi.org/10.1080/17524032.2012.753634

Smith, G., & Sobel, D. (2010). Place- and Community-based Education in Schools. In *Place- and Community-based Education in Schools*. Routledge.

Sobel, D. (2004). Place-based Education: Connecting Classroom and Community. *The Orion Society: Great Barrington, MA*, 1–7. https://doi.org/10.1093/isle/13.1.238

Toomey, A. H. (2023). Why facts don't change minds: Insights from cognitive science for the improved communication of conservation research. *Biological Conservation*, *278*, 109886. https://doi.org/10.1016/j.biocon.2022.109886

Tuan, Y.-F. (1977). *Space and Place: The Perspective of Experience*.

UNESCO (2020). Education for Sustainable Development for 2030. A roadmap. Paris: UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000374802

Van Kerkhoff, L., & Lebel, L. (2006). Linking knowledge and action for sustainable development. *Annual Review of Environment and Resources*, *31*, 445–477. https://doi.org/10.1146/annurev.energy.31.102405.170850

Verlinghieri, E. (2020). Learning from the grassroots: A resourcefulness-based worldview for transport planning. *Transportation Research Part A: Policy and Practice*, *133*, 364–377. https://doi.org/10.1016/j.tra.2019.07.001

Woodhouse, J. (2001). Over the river & through the "hood: Re-viewing" "place" as focus of pedagogy. An introduction. *Thresholds in Education, 27*(3), 1–5.