

Wild Wellbeing Hub

An Evaluation Report for Derbyshire Wildlife Trust 2022

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Executive Summary

Derbyshire Wildlife Trust (DWT) received funding from the Cadent Foundation who seek to make lasting, positive differences in local communities (Cadent Foundation, 2020) via running intervention programmes to improve wellbeing through nature connectedness. This funding was used to develop the *Wild Wellbeing Hub* programme of initiatives which aimed to engage local people from socioeconomically deprived areas in Derby City. The objectives were to encourage participants to spend more time in nature and to explore the 'five ways to wild wellbeing' through a range of activities.

To find out if the *Wild Wellbeing Hub* programme had an impact on nature connectedness, wellbeing and loneliness, data was collected at two time points- at the start of the sessions then again at the end and compared. Participants also answered several open questions which explored wellbeing, life satisfaction and their thoughts about the impact of the programme.

In summary, the data indicates that the *Wild Wellbeing Hub* programme had a positive impact for the people who engaged with the project and took part in this evaluation.

The quantitative data indicates several statistically significant positive changes.

Participants experienced:

- Feeling more a part of nature
- Increased mental wellbeing
- Increased life satisfaction
- Increased levels of how worthwhile they felt their life was
- Increased happiness
- A reduction in anxiety

The qualitative data reveals several benefits of the *Wild Wellbeing Hub* programme for participants.

Themes indicated that participants experienced:

- Social benefits from meeting new people, making friends and feeling a part of the community.
- Enhanced feelings of connection with both self and nature following time spent in nature.
- A positive impact on health and mental wellbeing.
- Positive benefits of learning about nature and taking part in creative activities.

Overall, the *Wild Wellbeing Hub* programme has had a very positive impact for the participants. It is recommended that the Derbyshire Wildlife Trust continue to deliver programmes such as this to community groups in urban and socio-economically deprived areas, given the benefits such projects can bring to the people living in these settings. This has the potential to make a strong contribution to addressing the increase in levels of mental ill-health seen during recent years (Baker, 2020).

Acknowledgements

The report authors would like to thank the Derbyshire Wildlife Trust staff for their support in the production of this report, in particular Lisa Witham and Kirsty Barker. Thanks also go to Maria Hendrick and Dominic Higgins of The Wildlife Trusts.

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1. Introduction to the evaluation context

Mental Health and Wellbeing

Increased rates of mental ill-health during recent years (Baker, 2020) are of great concern. Good mental health is not just the absence of mental ill-health, but the presence of wellbeing (Richardson, et al., 2021), with wellbeing being defined as the state of optimal human functioning (Pritchard et al., 2019). Recent UK data reveals previous trends for increased wellbeing have been negatively impacted due to the coronavirus pandemic (ONS, 2021) with higher levels of anxiety and reduced levels of happiness evident in adults. Concerns about the effects of the pandemic on mental health (e.g., Cullen, Glati & Kelly, 2020) and wellbeing (e.g. De Pue et al., 2021) have been well established. Other factors have also been shown to influence wellbeing, with higher levels of loneliness in older adults being linked to reduced wellbeing (Golden et al., 2019). Similarly, for younger people who are not in education, employment or training, lower levels of wellbeing are also observed (Goldman-Mellor et al., 2016). During the pandemic, people were placed under a range of restrictions which limited social interactions and resulted in high levels of loneliness (Groarke et al., 2020), which may also have negatively influenced wellbeing. Therefore, initiatives which might enhance wellbeing and reduce loneliness are of interest.

The Impact of Nature Connectedness

One approach that may help to support wellbeing is improving our relationship with nature. Increased levels of Nature Connectedness (NC) have been linked to wellbeing gains (Capaldi, Dopko & Zelenski, 2014; Pritchard et al., 2019), therefore interventions which increase nature connectedness have the potential to improve wellbeing.

The Intervention

Derbyshire Wildlife Trust (DWT) received funding from the Cadent Foundation, who seek to make lasting, positive differences in local communities (Cadent Foundation, 2020), to run intervention programmes to improve wellbeing through nature connectedness. This funding was used to develop the *Wild Wellbeing Hub* programme of initiatives. These aimed to engage local people, encourage them to spend more time in nature, and explore the 'five ways to wild wellbeing' through a range of activities. The intervention was delivered in Derby City in a socioeconomically deprived area. The Cadent Foundation funding was also used to support two further elements to the programme, i) providing nature-based taster sessions for Derbyshire Community Health Services staff and ii) a Wildscapes film project with Derby Royal Hospital, although these two elements were subject to a separate evaluation.

Impact of the Pandemic

The *Wild Wellbeing Hub* Derby project began during the Covid-19 lockdown and due to restrictions on social distancing, staff were unable to meet people face-to-face in physical green spaces straight away. Instead, they developed activities to give people a flavour of the project and a way to get to know the *Wild Wellbeing Hub* staff. It was hoped this would help local people feel more comfortable accessing the *Wild Wellbeing Hub* activities as DWT staff had started building a relationship with them. This was achieved by starting a *Wild Wellbeing Hub* Facebook group, making YouTube videos about the *Wild Wellbeing Hub* activities (which were available for anyone to watch), and hosting online webinars and zoom sessions. The DWT also produced a *Wild Wellbeing Hub* journal introducing the five ways to wild wellbeing which was made available in paper format to reach those without digital access.

When restrictions on social gatherings eased, DWT started face-to-face sessions focused on connecting with nature, nature-based crafts and mindful wellbeing activities. DWT had initially intended to run the *Wild Wellbeing Hub* as a 12-week programme, but due to the timeframes imposed by the pandemic, the programme was reduced to 7 weeks. In total, DWT delivered 8 x 7-week programmes for a range of local community organisations including Women's Work, Derbyshire Mind, Jericho House, Derby Refugee Forum, Evergreen, and St James's Centre. They also developed weekly sessions called Wild Wednesdays where participants could continue their *Wild Wellbeing Hub* journey at Derby Arboretum. In addition, by partnering with Friends of Derby Arboretum, Royal Crown Derby, Community Action Derby, Spiral Arts and Inspirative Arts, DWT were able to find additional green spaces to work in, and more participants. They also built a new volunteer team of 4 Wellbeing Assistant Volunteers to support these sessions.



Sweeping leaves, Royal Crown Derby

2. The Evaluation Methodology

The Wildlife Trusts commissioned the University of Derby to evaluate the *Wild Wellbeing Hub* intervention to evidence outcomes on nature connectedness, wellbeing and loneliness.

Study Design

To find out if *Wild Wellbeing Hub* had an impact on levels of nature connectedness, wellbeing and loneliness, data was collected at the start of the sessions and again at the end of the sessions. This allowed the comparison of scores across the two time points to establish if there had been any changes in the measures taken.

In addition, the people who took part in the *Wild Wellbeing Hub* programme answered four questions which explored additional aspects of wellbeing and life satisfaction. We conducted a content analysis of these questions. The people taking part also responded to three open-ended questions where they reported their feelings about the project and any impact it had on them. In addition, they were asked about why they joined the

programme, what they had enjoyed about it and if they had noticed any changes in their life since taking part in the programme. We conducted a thematic analysis of the responses to these final open questions.

Questionnaires

So that we could assess the impact of the *Wild Wellbeing Hub* project on the key measures of Nature Connectedness, Wellbeing and Loneliness, the people taking part were asked to complete four questionnaires.

Nature Connectedness

The Nature Connectedness Index (Richardson et al., 2019) includes six questions that are suitable for use with both adults and children. Questions include things like "Being in nature makes me very happy" and responses are scored from 1 (Completely disagree) to 7 (Completely agree).

The Inclusion of Nature in Self scale (Schultz, 2001) measures how much an individual feels they are a part of nature through a series of seven sets of overlapping circles reflecting increasing degrees of inclusion of self in nature.

Mental Wellbeing

Mental Wellbeing was measured by the Edinburgh-Warwick Mental Wellbeing Scale (Tennant et al., 2007) and this short measure contains seven questions which are scored on a five-point scale ranging from 1 (None of the time) through to 5 (All of the time). An example of the questions from the scale is "I've been dealing with problems well".

Loneliness

The three item UCLA Loneliness Measure was used to assess loneliness. Questions are scored on a three-point scale, ranging from "Hardly ever or never", "Some of the time", "Often". An example question is "How often do you feel left out?"

Quality of Life questions

Four questions were used to assess specific aspects of quality of life which were answered on a 10-point scale where 1 = not at all and 10 = completely. The questions were:

- 1. Overall, how satisfied are you with your life nowadays?
- 2. Overall, to what extent do you feel that the things you do in your life are worthwhile?
- 3. Overall, how happy did you feel yesterday?
- 4. Overall, how anxious did you feel yesterday?

Open Questions

When the questionnaire was complete for the second time, at the end of the *Wild Wellbeing Hub* sessions, four open-ended questions were asked:

- 1. What have you noticed in nature since taking part in the project?
- 2. Tell me about your life since you joined the activity/group. Has anything changed?
- 3. How did you feel about yourself before you came to the activity/group?
- 4. How do you feel now since taking part in the activity/group?

Qualitative Questions

The people taking part in *Wild Wellbeing Hub* were asked to share a little more information about their experience of the project. These were captured digitally and included the following questions:

- 1. Tell us why you joined this Wildlife Trust programme
- 2. What did you enjoy doing in this Wildlife Trust programme?
- 3. What's changed for you because of coming to this Wildlife Trust programme?

Data collection

Information about the evaluation was given to the people taking part in the *Wild Wellbeing Hub* sessions and if they were happy to take part, they completed a consent form to show they understood what they were being asked to do, how their data would be used and how they could stop taking part if they decided they would prefer not to continue with the evaluation. Once people were happy to take part, they completed a paper-based questionnaire at the start of the first session and completed another questionnaire at the end of the final session.



Tending raised beds, Derby Arboretum

Participant details

Participants came to the project through various community organisations based in Derby. Some attended the *Wild Wellbeing Hub* sessions as part of a recovery programme and others elected to join the programme.

In total 74 people completed the questionnaires at the start of the *Wild Wellbeing Hub* project and 43 people completed the questionnaires at the second time point giving an overall sample of 85 people. 30 people completed the questionnaires at both time points. Looking at all the people who completed the questionnaires, they were aged between 19 – 65 years with an average age of 38.2 (sd=10.4) years. Some participants struggled to complete the questionnaire due to vulnerabilities e.g., language barriers, learning differences and anxiety, and staff supported them where possible, however, this did result in a relatively small sample. Table 1 shows information about the gender and ethnicity breakdown of the people who took part and provided this data.

| Gender | Number | % | | | |
|-----------------------|--------|--------|--|--|--|
| Female | 36 | 42.35% | | | |
| Male | 31 | 36.47% | | | |
| Prefer to self-define | 3 | 03.53% | | | |
| Prefer not to say | 15 | 17.65% | | | |
| Ethnicity | | | | | |
| White | 32 | 37.65% | | | |
| Mixed/multiple | 3 | 03.53% | | | |
| Black | 7 | 08.24% | | | |
| Asian | 17 | 20.00% | | | |
| Other | 1 | 01.18% | | | |
| Prefer not to say | 25 | 29.41% | | | |

Table1. Details about the people who took part in the evaluation



Community gardening, Derby Arboretum

3. Results

3.1 Quantitative data

The following results are based on the analysis of the data from the 30 participants who completed the questionnaires at both time points.

Significant increases were seen for:

- Inclusion of nature in self
- Mental wellbeing
- Life satisfaction
- Believing the things they do are worthwhile
- Happiness

Significant decreases were seen for Anxiety

Nature connectedness

There was a non-significant difference for nature connectedness between time one and time two, however inclusion of nature in self increased significantly between time one and time two, indicating that while the participants did not feel a greater connection with nature from the programme, they were able to view themselves more as a part of nature.

Mental Wellbeing

Mental wellbeing increased significantly from time 1 to time 2, indicating that the *Wild Wellbeing Hub* sessions had helped to improve people's mental wellbeing.

Loneliness

The loneliness levels were not significantly different between the two time points, although it had decreased very slightly from time 1 to time 2.

Life Satisfaction

Life satisfaction increased significantly from time 1 to time 2.

To what extent do you feel the things you do are worthwhile?

There was a significant increase in how worthwhile the participants found the things that they did.

How happy did you feel yesterday?

There was a significant increase in how happy the participants felt.

How anxious do you feel?

There was a significant reduction in anxiety between time 1 and time 2.



Community gardening, Derby Arboretum

Table 2 shows a summary of the means (average scores of the sample), standard deviations (sd) and associated statistical information across the two time points, for nature connectedness, mental wellbeing, loneliness and life satisfaction.

| Variable | Mean (sd) Time 1 | Mean (sd) Time 2 | t value | Significant |
|---------------------------------------------------------------------------------|---------------------|---------------------|---------|-------------|
| Nature Connectedness | 2.30 (1.03) | 2.07 (0.10) | 1.34 | No |
| Inclusion of Nature in Self | 3.57 (1.40) | 4.54 (1.69) | -3.58 | Yes |
| Mental Wellbeing | 20.93 (4.14) | 24.00 (4.53) | -3.58 | Yes |
| Loneliness | 7.00 (1.73) | 6.15 (1.82) | 1.47 | No |
| Life Satisfaction | 6.29 (2.13) | 7.43 (1.91) | -4.24 | Yes |
| To what extent do you feel the things you do in your life are worthwhile? | 7.00 (2.00) | 7.86 (1.68) | -4.32 | Yes |
| How happy did you feel yesterday? | 14.81 (3.50) | 16.24 (2.05) | -2.47 | Yes |
| How anxious do you feel? | 7.33 (2.13) | 5.81 (2.64) | 2.28 | Yes |

| Table 2: Means (sd), T values and significance for | or variables across the time points |
|----------------------------------------------------|-------------------------------------|
|----------------------------------------------------|-------------------------------------|

3.2 Qualitative Data

Open Questions

Four participants provided written responses to the open questions contained in the questionnaire. A content analysis was used to identify the key factors that people identified when answering the three open questions.

What have you noticed in nature since taking part in the project?

The participants' senses had an integral role in their experiences with nature, with bright colours, smells and sounds drawing them to different stimuli within their environment. For many, the sensory aspect of nature helped them feel "calm" and "peaceful" with one participant reporting that nature helped them to "slow down". By noticing the different sensory aspects of nature, some participants became aware of seasonal changes, particularly the blossoming and wilting of flowers, and some found their emotions were evoked-with one participant reporting it was "sad" to see blossoms "falling off the trees".

Tell me about your life since you joined with the activity/group. Has anything changed?

A greater awareness of nature during the programme supported the participants to feel a greater sense of appreciation for the natural environment. Some individuals reported being more motivated to give back to nature and said they had developed a more active interest in nature. Some participants revealed that being in nature had an impact on their mental wellbeing with "more peace", "more confidence" and a greater improvement in mood being commonly reported. This improvement in mental health was suggested to be a result of embedding themselves within nature, with them stating they were more able to "take in much more" and "listen to nature". They also suggested that the programme had a positive impact on how they viewed the world and themselves, for example, one participant stated that they could "listen to my inner self" and another felt "more comfortable under my own skin".

How did you feel about yourself before you got involved with the activity/group?

A lack of confidence and heightened levels of anxiety and depression were commonly reported by many of the participants prior to joining the programme. Being able "fit in" was a concern for some. This sense of anxiety was a motivating factor to join the programme for one participant as they wanted to "find new ways of coping with my anxiety". Others had more optimistic feelings prior to attending the group and joined to gain a greater appreciation of nature.

How do you feel now since taking part in the activity/group?

Meeting "like-minded people" and being able to socialise with others was the main positive outcome participants gained from the group. One participant reported that they found comfort in the idea there were people like them "who are interested in nature and wellbeing". Some participants reported improved confidence and happiness after taking part in the activities, with one participant stating that the group had given them reassurance in their skills. This led them to want to pass this confidence onto others having "consolidated some ideas" about connecting others with nature.



Hanging a bird feeder, Derby Arboretum

Summary of the open questions

Overall, the responses to the open questions demonstrate the positive impact that the *Wild Wellbeing Hub* programme had for several participants. They reported increased feelings of optimism, particularly for the future, and improved mood. They also and had greater opportunities for social interaction and meeting and working alongside other people on the programme was often highlighted as a positive experience.

Qualitative questions

Participants were asked three additional open questions. The responses were analysed using thematic analysis. Commonalities across the responses were gathered into themes. Themes developed from the responses to each question are shown below with illustrative extracts from the participants.

Q1. Tell us why you joined this Wildlife Trust Programme

Participants had a variety of motivations for attending the programme. People were divided into two groups, those who attended as part of a recovery programme, and those who elected to join the programme. Three main themes (1 a, b, and c) were developed based on these two groups:

Theme 1a: Meeting people and learning about nature

Those not in recovery joined to meet new people and to learn more about nature, and these were often combined in their responses e.g.

"I wanted to meet like-minded people and also wanted to learn more about nature."

"I wanted to learn more about gardening, but also re-join the group of ladies."

"It helps me meet people and learn which is very important to me."

"Just to make friends, learn more about wild wellbeing."

In one young person's case, they had been encouraged to attend by a parent, and thus had different motivations around building social connections alongside additional prosocial benefits:

"My Mum saw it first and encouraged me to come along. It was something to come to and get me out the house, keep me out of trouble and a place to make friends."

As people had experienced a series of lockdowns, their drive to re-connect with others and engage in something new and educational was evident.



Hedge trimming, Royal Crown Derby

Theme 1b: Nature as health promoting

Some of the participants acknowledged the benefits of being in nature based on previous experience, and this supported their motivation to join:

"I try to spend as much time outside each week as I possibly can, so this seemed like a good use of my Wednesday evenings!"

"I feel better when I'm outside (fresh air)"

Although there were fewer responses around this across the data set within their motivations to join, the extracts highlight that although some participants were already engaging with nature independently, they saw additional benefits from attending a structured group.

Theme 1c: Giving back

Those in rehabilitation joined the *Wild Wellbeing Hub* project as part of their recovery/treatment programme, and within this their onus was on "giving back to the community". Although they lacked the choice to join, the participants were aware of the aim of their participation and articulated this clearly e.g.

"I came into rehab/ recovery 4 weeks ago, broken, beaten and spiritually bankrupt, out of touch with reality, myself, nature and the world. Part of our programme in recovery/ rehab was giving back in the community volunteering."

"It was a requirement of rehab, however, I have enjoyed learning."

This theme was particular to those in recovery.

Q2: What have you enjoyed doing in this Wildlife Trust Programme?

Participants enjoyed a variety of aspects of the programme, these were clustered into two themes outlined below:

Theme 2a. Creating and learning new things.

Participants from both groups (non-recovery and recovery) enjoyed the variety of activities and the creativity of the projects e.g.

One participant enthused that they loved "All of it! Yoga, planting, making bee hotels and baths, making plant pots, flower printing and making an adventure trail."

Several participants listed their favourite activities, and the variety appealed to all as they acknowledged that without the group, they would not have thought of these ideas or had these opportunities e.g.

"Doing crafts together, picking lavender to make small scent bag to put in the bedroom."

"Learning and understanding nature."

"The Royal Crown Derby Garden and planting our seeds at Jericho. Using the spinach and coriander in our cooking."

"I've enjoyed learning about plants, planting and mindfulness."

"It's really good, I really like it, I like gardening. I like making the clay pendants, planting outside and putting the bird feeders outside."



Hanging up bird feeders and making seed bombs

A final element that was clearly an important part of the programme was socialising with others, particularly as this programme was offered during and after a period of lockdowns which had impacted upon both groups. This is summarised in the theme below.

Theme 2b: Social Connections

Participants all valued "*Meeting people and talking to people, being part of the group*", with the focus of the groups and the inclusive nature of them being particularly welcomed by many. "*Mixing with different people*" was seen as a positive element of the sessions, e.g.

"I struggle with my mental health and have anxiety, especially with all this Covid stuff. The group has helped, having somewhere to come and talk to people. The classes are really good, it's good not to be stuck at home and locked down."

"Even though we are all very different, I've found the low pressure socialising useful. I've felt welcomed in this group without awkward questions about my disabilities or queerness!"

The group also gave structure to some participants' weeks:

"It's been good to get out and about again and have the group to come to as part of a weekly routine. It's given me a purpose every week."

"Something to look forward to. Get out more."

The skillful facilitation of the groups [often mentioned in comments by participants] allowed for the smooth cohesion with the sessions, and for people from a variety of backgrounds to come together to enjoy the creative and nature-based activities. One participant appreciated the feeling within the groups as: "*Just being part of something special*."

Participants were also asked to reflect upon the impact of the programme over time in the final question.

Q3. What has changed for you because of coming to this Wildlife Trust Programme?

The participants responses to this question were themed as follows:

Theme 3a: Mental Wellbeing.

Several of the participants reported improvements in their health and mental wellbeing as a result of their engagement with the *Wild Wellbeing Hub* programme, some highlighted mood changes, confidence shifts, a greater sense of appreciation and energy e.g.

"I'm happier, more confident within the group. I've learned new skills, recycling things to use in the garden. I enjoy walking the dog more as I pay more attention to the world around me."

"I feel more confidence."

"I feel better."

Theme 3b: Benefits of Community

Again, the participants highlighted the benefits of socialisation in the group activities and how this had facilitated a greater sense of personal connection within community groups.

"I feel more open to group situations."

"I've made friends (including someone who's looked after my cat for me!) and felt more positive overall."

Some participants reported changes due to their positive experiences with the group i.e. it had encouraged them to volunteer to assist others e.g.

"I've now become a volunteer for Derbyshire Mind (and volunteering to assist with the next Wild Wellbeing programme)."

Or in the case of a participant in the rehabilitation programme, it had changed their *"attitude towards volunteering*".

The group experience had also given people a chance to understand how they operated within these settings i.e. their abilities, confidence and social skills e.g.

"I feel okay about my own level of ability and still being 'useful' in these sorts of groups."

"The group has helped build creative connections to each other, sharing our experiences of nature. Having an inviting space indoors and in the garden. Giving people an option to try something new. Learn about wildlife, animals, trees and plants. I feel inspired to share the activities with others and to do them at home." Feeling more connected with other people through the group aspect of the programme was clearly helpful for the participants. Additionally, their relationship with themselves was positively impacted as highlighted in the final theme below.

Theme 3c: New connections with self and nature

Participants reported increases in their connection to the natural world, and an enhanced awareness of their abilities to pay attention to it. This also revealed increased self-connection and positive emotions in some e.g.

"I've always left the sessions feeling better about life and more connected to the world around me. I'm really glad it's continuing on an informal basis."

"Take more care in nature more mindful of my surroundings."

"I am much more peaceful and encouraged about nature in general."

"I feel more in touch with the world, nature, myself and wildlife."



Hanging up a bird feeder

"I noticed nature more and have enjoyed getting out and about again and being creative. I've noticed the trees more, how there's no leaves on them now."

"Seeing the beauty in the world again. Getting in touch with nature and wildlife is spiritually important for me and I'm seeing nature bigger and brighter each day."

In conclusion, the participants who completed the open questions had clearly benefitted greatly from the group experience and the activities offered to them. The impact upon their sense of connection to self, others and nature is clear within the themes.

4. Conclusions and next steps

Summary

The data indicates that *Wild Wellbeing Hub* has had a positive impact for the people who engaged with the project and took part in this evaluation.

The quantitative data indicates a number of significant positive changes. Overall, the participants viewed themselves more as a part of nature and experienced increases in mental wellbeing, life satisfaction, how worthwhile they felt their life was and how happy they felt. Participants also experienced a reduction in feelings of anxiety. Although the quantitative data showed no significant change in nature connectedness or loneliness, the qualitative data does indicate that participants experienced an increased connection with and appreciation of nature.

The qualitative data provides additional support for the benefits of the *Wild Wellbeing* Hub programme for the participants. The themes developed from the responses to the open questions indicate that participants experienced social benefits from meeting new people, making friends and feeling a part of the community. Participants also benefitted from spending time in nature; they reported enhanced feelings of connection with both self and nature, and enhanced health and mental wellbeing were also noted. Participants also commented on the positive benefits of learning about nature and taking part in creative activities.

References

- Baker, C. (2020). Mental Health Statistics for England: Prevalence, services and funding. House of Commons Briefing Paper Number 6988. <u>https://dera.ioe.ac.uk/34934/1/SN06988%20(redacted).pdf</u>
- Cullen, W., Gulati, G. & Kelly, B. D. (2020). Mental health in the COVID-19 pandemic, *QJM: An International Journal of Medicine*, <u>113</u>, 5, 311–312, https://doi.org/10.1093/gjmed/hcaa110
- De Pue, S., Gillebert, C., Dierckx, E. *et al.*, (2021). The impact of the COVID-19 pandemic on wellbeing and cognitive functioning of older adults. *Scientific Reports*, *11*, 4636. <u>https://doi.org/10.1038/s41598-021-84127-7</u>
- Golden, J., Conroy, R. M., Bruce, I., Deniham, A., Greene, E., Kirby, M. & Lawlor, B. A. (2009). Loneliness, social support networks, mood, and wellbeing in community-dwelling elderly. *International Journal of Geriatric Psychiatry*, 24, 694-700. Doi: 10.1002/gps.2181
- Goldman-Mellor, S., Caspi, A., Arseneault, L., Ajala, N., Ambler, A., Danese, A., Fisher, H., Hucker, A., Odgers, C., Williams, T., Wong, C., & Moffitt, T. E. (2016). Committed to work but vulnerable: self perceptions and mental health in NEET 18-year olds from a contemporary British cohort. *Journal of Child Psychology and Psychiatry, and Allied Disciplines, 57*(2), 196–203. <u>https://doi.org/10.1111/jcpp.12459</u>
- Groarke, J. M., Berry, E., Graham-Wisener, L., McKenna-Plumley, P. E., McGlinchey, E. et al. (2020) Loneliness in the UK during the COVID-19 pandemic: Cross-sectional results from the COVID-19 Psychological Wellbeing Study. *PLOS ONE 15*(9): e0239698. https://doi.org/10.1371/journal.pone.0239698
- Hughes, M. E., Waite, L. J., Hawkley, L. C., & Cacioppo, J. T. (2004). A short scale for measuring loneliness in large surveys: Results from two population-based studies. *Research on Aging*, 26(6), 655–672.
- ONS (2021) Personal wellbeing in the UK, quarterly <u>https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/bulletins/persona</u> lwellbeingintheukquarterly/april2011toseptember2021
- Pritchard, A., Richardson, M., Sheffield, D., & McEwan, K. (2019). The relationship between nature connectedness and eudemonic well-being: A meta-analysis. *Journal of Happiness Studies, 21*, 1145-1167 <u>https://doi.org/10.1007/s10902-019-00118-6</u>
- Richardson, M., Hunt, A., Hinds, J., Bragg, R., Fido, D., Petronzi, D. Barbett, L., Clitherow, T. and White, M. (2019). A Measure of Nature Connectedness for Children and Adults: Validation, Performance, and Insights. *Sustainability*. *11*(12), 3250; <u>https://doi.org/10.3390/su11123250</u>
- Richardson, M., Passmore, H-A., Lumber, R., Thomas, R. & Hunt, A. (2021). Moments, not minutes: The nature—well-being relationship. *Journal of Happiness Studies, 11*,1. <u>https://doi.org/10.5502/ijw.v11i1.1267</u>.
- Schultz, P. W. (2001). The structure of environmental concern: Concern for self, other people, and the biosphere. *Journal of Environmental Psychology*, *21*, 327-339.
- Tennant, R., Hiller, L., Fishwick, R., Platt, S., Joseph, S., Weich, S., Parkinson, J., Secker, J. & Stweart-Brown, S. (2007). The Warwick-Edinburgh Mental Well-being Scale (WEMWBS): development and UK validation. *Health Qual Life Outcomes 5*, 63 https://doi.org/10.1186/1477-7525-Page Break

Appendices

Copy of the questionnaire (excluding information given to participants at the start of the project and consent questions)







This evaluation seeks to understand any effect taking part in the Wildlife Trust project has on your wellbeing and relationship with nature (as covered in the information sheet you just read). Thank you for agreeing to take part.

First, we would like to ask a little more about you.

Age: How old are you (in years)

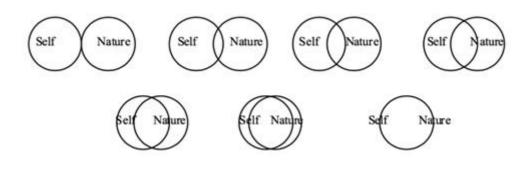
Your gender (Please circle) Male Female Prefer to self-define Prefer not to say

Ethnicity (please circle) White Mixed or Multiple Ethnic Group Black, African, Caribbean or Black British Asian or Asian British Other ethnic group The following questions are about you and nature. By nature we mean all types of natural environment and all the plants and animals living in them. Nature can be close to where you live in towns, the countryside or wilderness areas further away.

| | Completely disagree | | | | | | Completely agree |
|-------------------------------------------------------------------------|------------------------|---|---|---|---|---|---------------------|
| 1. I always find beauty in nature | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. I always treat nature with respect | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. Being in nature makes me very happy | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Spending time in nature is very important to me | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. I find being in nature really amazing | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. I feel part of nature | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Please tell us how much you agree or disagree with each of the following statements, by putting a tick in the relevant box.

Please select the picture below which best describes your relationship with the natural environment. How interconnected are you with nature right now?



Below are some statements about feelings and thoughts. Please tick the box that best describes your experience of each over the last 2 weeks.

| | None of the time | Rarely | Some of the time | Often | All of the time |
|----------------------------------------------------|------------------|--------|------------------|-------|-----------------|
| I've been feeling optimistic about the future | | | | | |
| l've been feeling useful | | | | | |
| l've been feeling relaxed | | | | | |
| I've been dealing with problems well | | | | | |
| l've been thinking clearly | | | | | |
| I've been feeling close to other people | | | | | |
| I've been able to make up my own mind about things | | | | | |

Below are some statements about feelings and thoughts. Please tick the box that best describes your experience of each over the last 2 weeks.

| | Hardly ever or never | Some of the time | Often |
|----------------------------------------------------|----------------------------|---------------------|-------|
| How often do you feel that you lack companionship? | | | |
| How often do you feel left out? | | | |
| How often do you feel isolated from others? | | | |

Next, we would like to ask you four questions about your feelings on aspects of your life. There are no right or wrong answers. For each of these questions I'd like you to give an answer on a scale of 1 to 10, where 1 is "not at all" and 10 is "completely"

Overall, how satisfied are you with your life nowadays?

| | Not at all satisfied | | | | | | | | | Completely satisfied |
|-----|----------------------------------------------|---------|----------|---------|----------|----------|----------|-----------|----------|---------------------------------------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| _ | | _ | - | | - | | , | - | | |
| Ove | Not at all worth while | hat ext | ent do y | ou feel | that the | things y | /ou do i | n your li | fe are v | vorthwhile? Completely worth while |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Ove | erall, how Not at | happy | did you | feel ye | sterday? | | | - | - | - |
| | all happy | | | | | | | | | Completely happy |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| | a scale w ious did y _{Not at} | | | | xious" a | nd 10 is | s "comp | letely ar | nxious", | overall, how |
| | all | | | | | | | | | Completely |

| all | | | | | | | | | Completely |
|---------|---|---|---|---|---|---|---|---|------------|
| anxious | | | | | | | | | anxious |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| | - | 0 | | Ū | 0 | | 0 | Ū | |

What have you noticed in nature since taking part in the project?

Tell me about your life since you joined in with the activity / group. Has anything changed?

| How did you fee | I about yourself | before you got involv | ed with the activity / | group? |
|-----------------|------------------|-----------------------|------------------------|--------|
|-----------------|------------------|-----------------------|------------------------|--------|

How do you feel now since taking part in the activity/group?

This is the end of the survey. Thank you very much for taking part. There is more information about the study on the next page. Please read this or take this page away with you.