## Metadata for natureupclose\_data.csv

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## Introduction

These are data from a randomised controlled experiment to test the impact of nature-focussed activities on people’s connectedness to nature and wellbeing.

This project recruited 1295 people who completed the pre-participation surveys. People were recruited via an open invitation through social media and print media. Each person was then randomly assigned to one of six groups. Those in non-control groups were asked to take part in one ten-minute activity five times over eight days; this could be done in any place with nature near to them. The activities were: two different citizen science activities, a nature-noticing activity asking people to note three good things in nature (3GTiN) daily, or a combination of citizen science and the nature-noticing activity. Those in the control group were asked to wait until they were contacted again (this was a 'wait-list control'). After eight days each person was invited to take part in a post-participation survey. 500 people (the ‘participants’) completed the full requirements for the study (i.e. completing the post-survey measures and either taking part in their assigned activities at least once or being allocated to the wait list control).

This dataset contains (i) the pre-participation survey data from the 1295 people who completed it and were allocated to a group, and (ii) the post-participation survey data for the 500 of those people completed the post-participation survey data and either took part in their assigned activities at least once or were in the wait-list control group.

Missing data are represented by blank cells.

## Description of the fields in the dataset

The prefix numbers refer to the column number.

1. PersonID: unique identifier for each person who signed up to the project.

2. LineSurvey1: reference for each respondent to the pre-participation survey.

3. ResponseIDSurvey1: unique reference for each respondent to the pre-participation survey.

4. DateSurvey1: Date and time when the respondent completed the pre-participation survey.

5. LineSurvey2: reference for each respondent to the post-participation survey.

6. ResponseIDSurvey2: unique reference for each respondent to the post-participation survey.

7. DateSurvey2: Date and time when the respondent completed the post-participation survey.

8. Participant: Code to identify those who completed the pre- and post-participation surveys and met the conditions for inclusion as 'full participants' in the study. 0 = did not meet the conditions; 1 = did meet the conditions (N(Participant==1) = 500)

9. INS\_pre: Inclusion of nature in self scale from the pre-participation survey. Respondents report the extent to which nature is included in their sense of self by selecting an image (two circles varying in their degree of overall) that best represents the relationship between their self and nature (Schultz, 2001; https://doi.org/10.1006/jevp.2001.0227). Values = 1 to 7.

10. INS\_post: As line number 9 but from the post-participation survey.

11. NR6sum\_pre: The sum of the six components of Nature Relatedness scale (NR6: Nisbet & Zelenski, 2013; https://doi.org/10.3389/fpsyg.2013.00813) from the pre-participation survey. Note that the original paper uses the mean of these values not the sum, so users should divide by six to get the value equivalent to Nisbet & Zelenski (2013). Each component is scored on a five-point scale (1 = disagree strongly, 2 = disagree a little, 3 = neither agree not disagree, 4 = agree a little, 5 = agree strongly).

12. NR6sum\_post: As line number 11 but from the post-participation survey.

13. SatisfiedWithLife\_pre: Score from the pre-participation survey of an 11-point scale ranging from 0 = ‘Not satisfied at all’ to 10 ‘Completely satisfied’ from the Office for National Statistics subjective wellbeing survey questions (Hicks et al., 2013; https://doi.org/10.1007/s11205-013-0384-x).

14. SatisfiedWithLife\_post: As line number 13 but from the post-participation survey.

15. WorthwhileLife\_pre: WorthwhileLife\_pre: Score from an 11-point scale ranging from 0 = ‘Not at all worthwhile’ to 10 ‘Completely worthwhile’ from the Office for National Statistics subjective wellbeing survey questions (Hicks et al., 2013).

16. WorthwhileLife\_post: As line number 15 but from the post-participation survey.

17. PROCOBScivilaction\_pre: Sum of scores from the pre-participation survey from the four items from the short-form Pro-nature conservation Behaviour Scale related to civil action (see number 19 for more information).

18. PROCOBSgarden\_pre: Sum of scores from the pre-participation survey from the four items from the short-form Pro-nature conservation Behaviour Scale related to gardening (see number 19 for more information).

19. PROCOBS\_pre: Sum of scores from eight items from the short-form Pro-nature conservation Behaviour Scale from the pre-participation survey in which people indicate how often they perform (or intend to perform) eight specific pro-nature conservation behaviours (e.g. picking up litter, being politically involved with conservation issues, or doing wildlife-friendly gardening) using a 7-point scale from 1 = ‘Never’ to 7 = ‘Always’ (Barbett et al., 2020; https://doi.org/10.3390/su12124885). It is comprised of two components: those related to gardening (four items) and others (termed civil action; four items).

20. PROCOBScivilaction\_post: As number 17 but from the post-participation survey.

21. PROCOBSgarden\_post: As number 18 but from the post-participation survey.

22. PROCOBS\_post: As number 19 but from the post-participation survey.

23. Health\_pre: Score from the pre-participation survey from a single-item scale ranging from 1 ‘Poor’ to 5 ‘Excellent’. This scale has been found to perform well in both cross-sectional and longitudinal research (Macias et al., 2015; https://doi.org/10.1007/s10880-015-9436-5).

24. Health\_post: As line number 23 but from the post-participation survey.

25. Happiness\_pre: Score from the pre-participation survey from an 11-point scale ranging from 0 = ‘Not at all happy’ to 10 = ‘Very happy’ in response to the question ‘Do you feel happy in general?’ (Abdel-Khalek, 2006; https://doi.org/10.2224/sbp.2006.34.2.139).

26. Happiness\_post: Score from the post-participation survey (see line number 25 for more information).

27. Age: The age given by the respondent in years.

28. Age\_comments: Comments about age if these were provided by the respondent.

29. Sex: The sex selected by the respondent, selected from the following categories:

female,

male,

other,

prefer not to say.

30. Ethnicgroup: The ethinic group selected by the respondent, selected from the following categories:

Asian or Asian British;

Black or Black British;

Mixed;

Other ethnic group;

Prefer not to say;

White.

31: spendtimeoutsideatleastafewtimesperweek: Response to the question 'In an average month last year, how much time did you spend outside?', where 1 = almost everyday or a few times a week, 0 = once a week, less than once a week or none.

32: postcode: The postcode district (e.g. "OX10") given by respondents. Blank cells represent where the postcode district was not provided or was not from the UK.

33: condition: For those who completed the pre-participation survey, they were allocated to a group for the study. These conditions are explained in words in number 34.

34. conditiontext: The names of the six groups:

pollinator (the Pollinator Flower-Insect Timed Counts, which is part of the UK Pollinator Monitoring Scheme)

butterfly (undertaking a 10-minute butterfly survey using the iRecord Butterflies smartphone app)

noticingnature (spending 10 minutes to take part in the Three Good Things in Nature (3GTiN) activity)

combinedpollinator (the same as the pollinator group, but asked to also notice three good things in nature)

combinedbutterfly (the same as the butterfly group, but asked to also notice three good things in nature)

acontrol (a wait-list control group, i.e. not asked to take part in any activity prior to the post-participation survey).

35: conditiontypetext: recoding the 'conditiontext' categories, so that:

citsci = citizen science activities (pollinator and butterfly groups)

noticingnature = noticingnature

combined = combined citizen science and noticing nature (combinedpollinator and combinedbutterfly groups)

control = acontrol (aiting list control group).

36: Engagementwiththetask: For those who completed the post-participation survey, the answer to the question: 'Please rate your level of engagement with the task you were set'. Respondents selected from the following options:

0 = Not engaged at all

1 = Not really engaged

2 = Quite engaged

3 = Very engaged.

Line numbers 37 to 42 were answers to the question 'How did you find taking part in the experiment? Please rate the following statements'. Respondents selected from the following options:

1 = Completely disagree

2 = Disagree a little

3 = Neither agree nor disagree

4 = Agree a little

5 = Agree strongly

37: Ifeltclosetonaturethroughmysenses: Whilst taking part, I felt close to nature through my senses (see above for scoring).

38: Ifoundtakingpartcalmingorjoyful: I found taking part calming or joyful (see above for scoring).

39: Inoticedthebeautyofnaturewhilsttakingpart: I noticed the beauty of nature whilst taking part (see above for scoring).

40: Ifoundtakingpartmeaningful: I found taking part meaningful (see above for scoring).

41: Ifeltiwashelpingtotakecareofnature: I felt I was helping to take care of nature by taking part (see above for scoring).

42: Ifoundtakingpartfrustrating: I found taking part frustrating (see above for scoring).

43: Timespentoutsideduringthetask: Response to the question 'How much time did you spend outside with nature during the task?'. Respondents selected from the following options:

0 = None at all

1 = A little

2 = A moderate amount

3 = A great deal

4 = A lot

44: Howmanytimesdidyoudotheactivities: Response to the question 'How many times did you do the activies?'. Respondents selected from the following options: 0, 1, 2, 3, 4, 5, 6 (where 6 = "more than five times").

45: Openquestionanswers: A code to show whether respondents gave an answer to the open questions 'what did you like/dislike about taking part?'. 0 = no open answer given; 1 = an open answer given to one or both question

46: Whatyoulikedabouttakingpart: The answer given to the question "If we asked you to do activities over the past week, please briefly describe 1 or 2 things that you liked about taking part". We checked for text that was potentially personally identifiable, but did not find instances requiring action for this. These answers were subject to thematic analysis as indicated by the follow lines (line numbers 46 to 51).

47. liketheme\_noticingnature: Open answers about what people liked about taking part related to the theme of noticing nature.

48. liketheme\_intrinsicbenefits: Open answers about what people liked about taking part related to the theme of intrinsic benefits (including enjoyment of being outside).

49. liketheme\_contributing: Open answers about what people liked about taking part related to the theme of contributing to something.

50. liketheme\_learning: Open answers about what people liked about taking part related to the theme of learning.

51. liketheme\_socialconnections: Open answers about what people liked about taking part related to the theme of social connections.

52. liketheme\_other: Open answers about what people liked about taking part that did not fit into other themes.

53. Whatyoudidntlikeabouttakingpart: The answer given to the question "If we asked you to do activities over the past week, please briefly describe 1 or 2 things that you did not like about taking part". We checked for text that was potentially personally identifiable, but did not find instances requiring action for this. These answers were subject to thematic analysis as indicated by the follow lines (line numbers 53 to 59).

54. disliketheme\_weather: Open answers about what people did not like about taking part related to the theme of limitations due to weather.

55. disliketheme\_lackoftime: Open answers about what people did not like about taking part related to the theme of lack of time (including forgetting and feeling obligated to take part).

56. disliketheme\_complexity: Open answers about what people did not like about taking part related to the theme of the task complexity.

57. disliketheme\_technology: Open answers about what people did not like about taking part related to the theme of technological problems.

58. disliketheme\_lackofsuccess: Open answers about what people did not like about taking part related to the theme of lack of success in the task.

59. disliketheme\_interferedwithnatureengagement: Open answers about what people did not like about taking part related to the theme of interfering with nature enjoyment.

60. disliketheme\_nothing: Open answers where people stated there was nothing that they did not like about taking part.

61. disliketheme\_other: Open answers about what people did not like about taking part that did not fit into other themes.

62. Median\_IMD\_postcodedistrict: The median index of multiple deprivation decile score across all lower super output areas (LSOAs) across the postcode district for UK postcodes. (See appendix of the associated paper for full details how this was done.)

63. Mean\_IMD\_postcodedistrict: The mean index of multiple deprivation decile score across all lower super output areas (LSOAs) across the postcode district for UK postcodes. (See appendix of the associated paper for full details how this was done.)

64. latitude: The latitude of the middle of the postcode district for UK postcodes. This is only given when a UK postcode district was provided (see column number 32).

65. longitude: The longitude of the middle of the postcode district for UK postcodes. This is only given when a UK postcode district was provided (see column number 32).