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York Environmental
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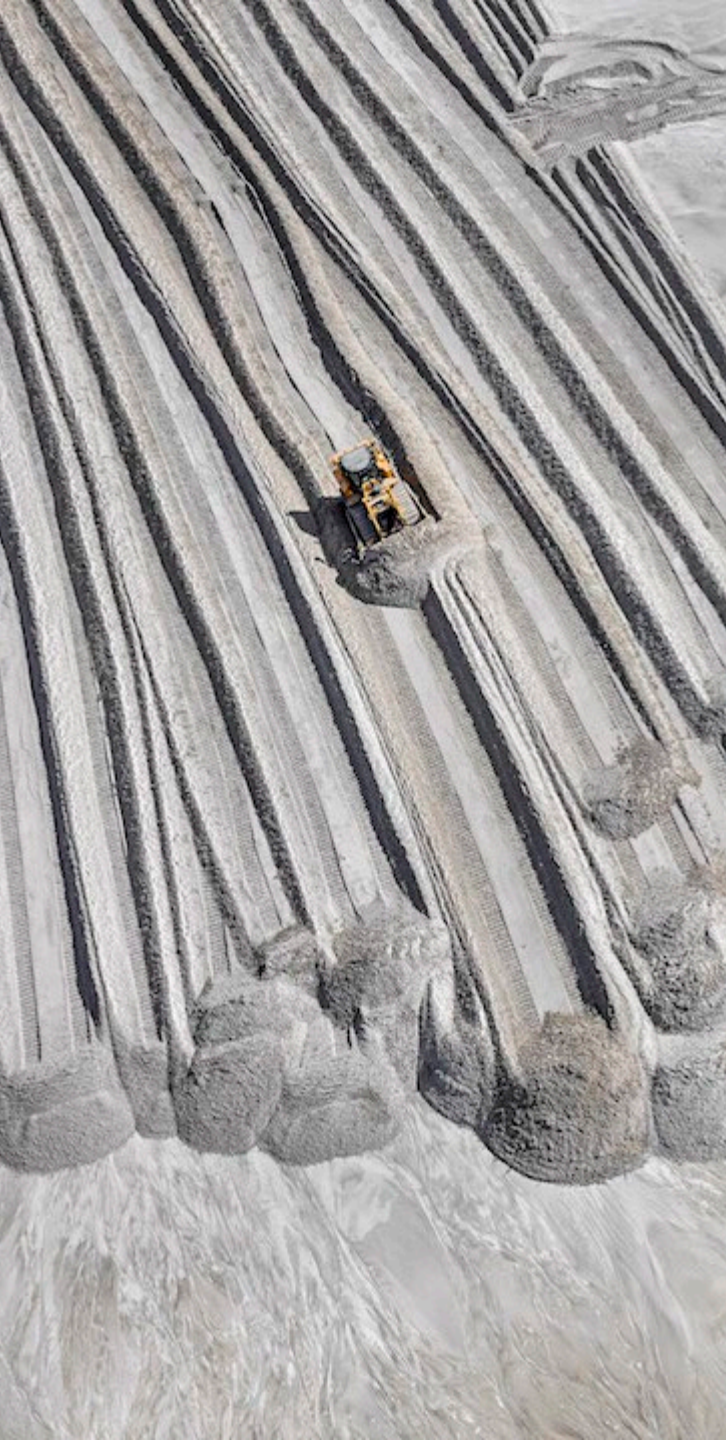
Connecting with nature for mental health and wellbeing

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Re-emergence of nature during the pandemic

- YouGov poll for the Mental Health Foundation found:
 - 50% agreed that being able to visit green space helped them cope with the stress of the coronavirus pandemic.
 - 73% of UK adults said connecting with nature had played an important role in managing their mental health during the pandemic
 - 34% had connected with nature more during the pandemic despite spending less time outdoors because of lockdown



Emergence of the Anthropocene

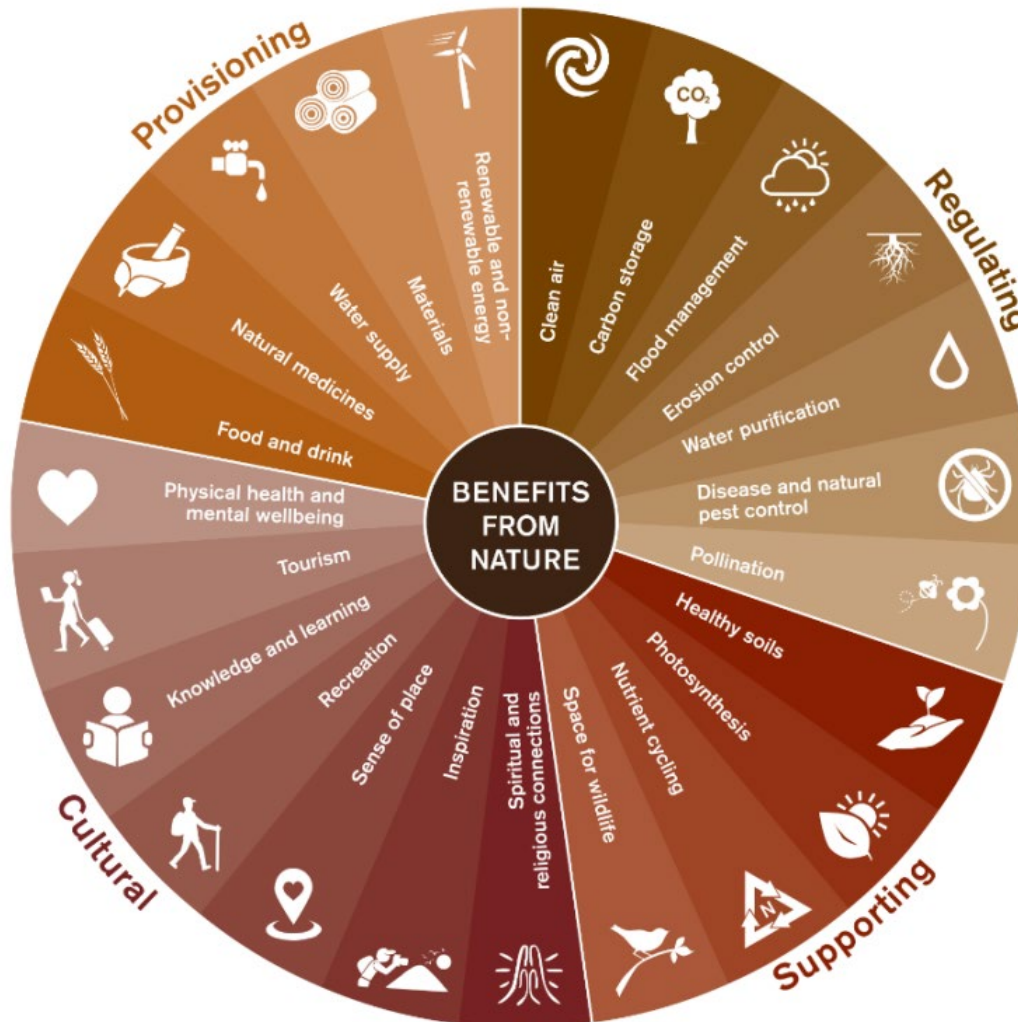
- Intergovernmental Science Policy Platform on Biodiversity and Ecosystem Services (IPBES) concluded that ecosystem decline has accelerated
 - 47% decline in ecosystem extent and condition
 - 82% decline in biomass and species abundance
 - 25% of species threatened with extinction
 - Humans influence all biological and physical systems on the planet

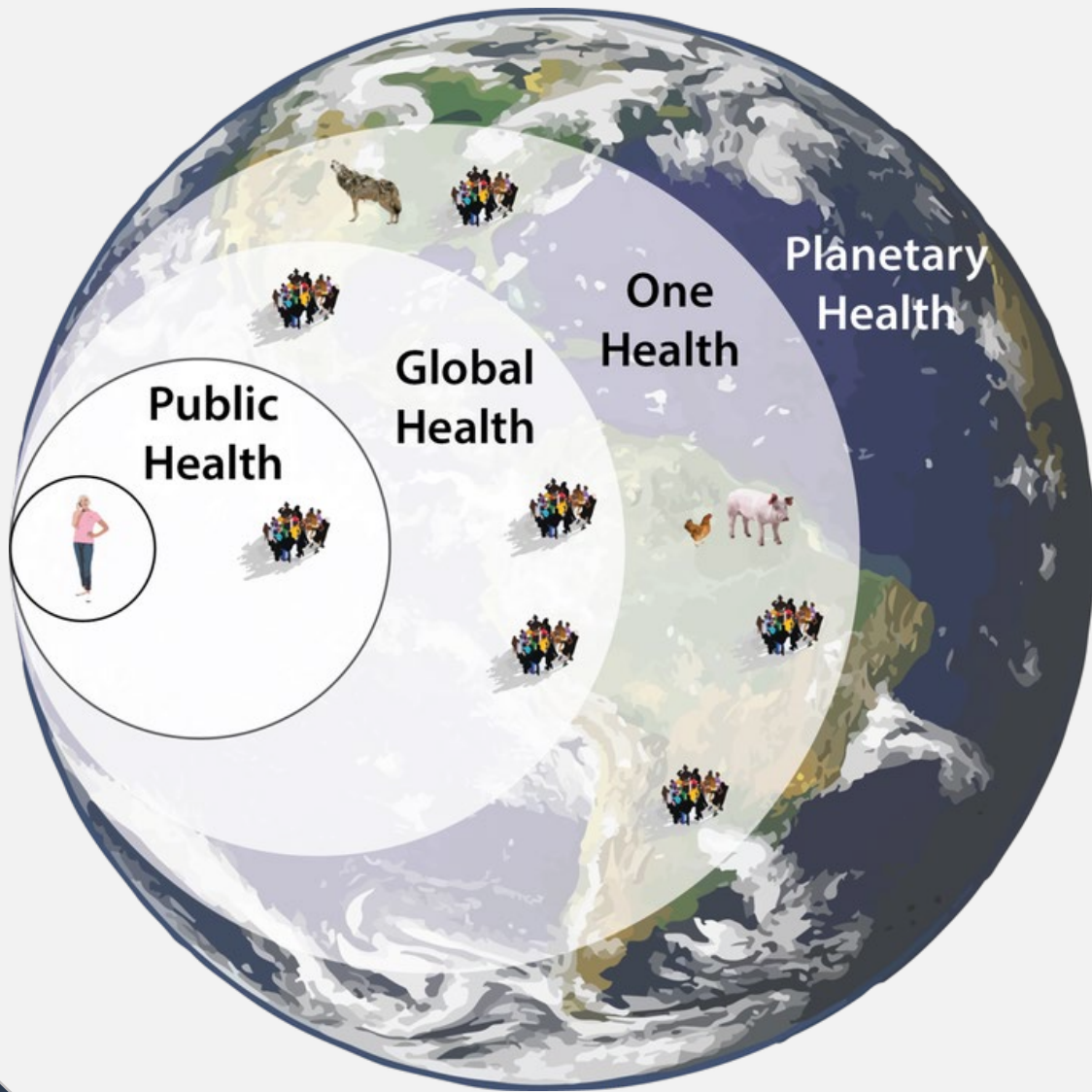


Nature as green and blue space

- Green spaces as publicly accessible areas with natural vegetation, such as grass, plants or trees
 - Parks
 - Outdoor sports fields
 - Community gardens and allotments
 - Woodlands and nature reserves
- Blue spaces
 - Man made (e.g. canals; boating lakes)
 - Naturally occurring fresh water (e.g. rivers; ponds; lakes)
 - Salt water bodies

Ecosystem services





**Public
Health**

**Global
Health**

**One
Health**

**Planetary
Health**

The background of the slide is a soft, out-of-focus image of green foliage, creating a bokeh effect with various shades of green and yellow-green. The text is centered and reads:

Why nature can promote
health and wellbeing

Green space and health benefits

- Abundant evidence that proposes that exposure to and activities in green space are beneficial to physical and mental health
- In urban and residential green contexts the protective effects of green space are thought to come from:
 - Supportive social interaction spaces promoting a sense of community
 - Active living spaces facilitating physical activity
 - Natural filters ameliorating the adverse effects of negative exposures such as air, noise, and thermal pollution

- Attention restoration theory:

Exposure to natural environments stimulates mechanisms that restores attentional processes via 'soft fascination' and involuntary attention, leading to recovery from cognitive fatigue

- Stress reduction theory:

Exposure to natural environments reduces physiological stress and aversive emotion through activation of our parasympathetic nervous system, producing a psychophysiological stress recovery response owing to innate preferences to natural environments

Nature connectedness for health and wellbeing

- Nature connectedness relates to how we relate to and experience nature
- Quality of time in nature matters
- Activities in nature can enhance connectedness with nature
- Nature connectedness associated with:
 - Lower levels of poor mental health
 - Pro-environmental behaviours which can confer co-benefits for natural spaces
 - Feelings of life as purposeful and worthwhile



Nature-based Outdoor Activity for Health – systematic review

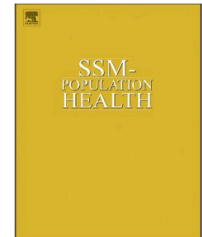
SSM - Population Health 16 (2021) 100934



Contents lists available at [ScienceDirect](#)

SSM - Population Health

journal homepage: www.elsevier.com/locate/ssmph



Nature-based outdoor activities for mental and physical health: Systematic review and meta-analysis



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Environmental and health co-benefits

- Proof of concept work with volunteers, including older adults, to gauge mental health benefits of nature-based activities
- Showed that guided walks, citizen science and conservation activities linked with improved mood
- Significant association between reduction in stress and location
- Especially important were purposeful activities that conferred environmental and health co-benefits



Motivations for nature-based activities

I want to see the reserve being maintained properly

You can see the changes that we have made in some reserves. Some of the reserves we have made a real difference to

I felt I'd had good activity and I could see I was doing something worthwhile in an important place—so it ticked the boxes of green space that was doing something useful

I went down almost the first Wednesday after I finished work


A person wearing blue jeans and white sneakers is walking on a large, weathered log in a forest. The ground is covered in fallen leaves and ferns. The background is a dense forest with green foliage.

Green social prescribing

Photo by [Jon Flobrant](#) on [Unsplash](#)

What is green social prescribing (GSP)?

- GSP connects people to nature-based and outdoor activities to support health and wellbeing
- Social prescribing link workers connect people to community groups for practical and emotional support based on the 'what matters to you' approach
- GSP can contribute to reducing inequalities in access to nature and connection to nature
 - Socially isolated older adults
 - Those at higher risk of mental health problems
 - Children and young people with learning disabilities



Conservation
e.g. habitat
restoration
and creation

**Wilderness
focused**
e.g. bushcraft
and survival

**Horticulture
and
gardening**
e.g.
community
gardening

Care farming
e.g. animal
husbandry

**Exercise
focused**
e.g. outdoor
gyms &
walking
groups

**Creativity
focused**
e.g. art
activities &
green
woodworking

**Sport
aligned**
e.g. surfing,
climbing

**Nature
Appreciation**
e.g. citizen
science

**Integrating
talking
therapies**
e.g. CBT &
mindfulness

**Integrating
alternative
therapies**
e.g. spiritual
retreats

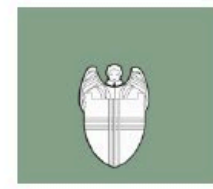
Humber and North Yorkshire green social prescribing programme



Funded projects:



RAINCLIFFE WOOD
COMMUNITY ENTERPRISE



Roots and
Shoots
Bridlington
Community
Allotment



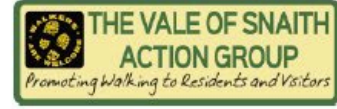
St Nicks
The Green Heart of York

Vale of York Athletic
Community



Vale
of York

East Riding
of Yorkshire



NAVIGO



GREEN
FUTURES



North
Lincolnshire

Hull

North East
Lincolnshire

Community Triumph Ltd.



HUMBER & WOLDS
RURAL ACTION

CLIMB 4

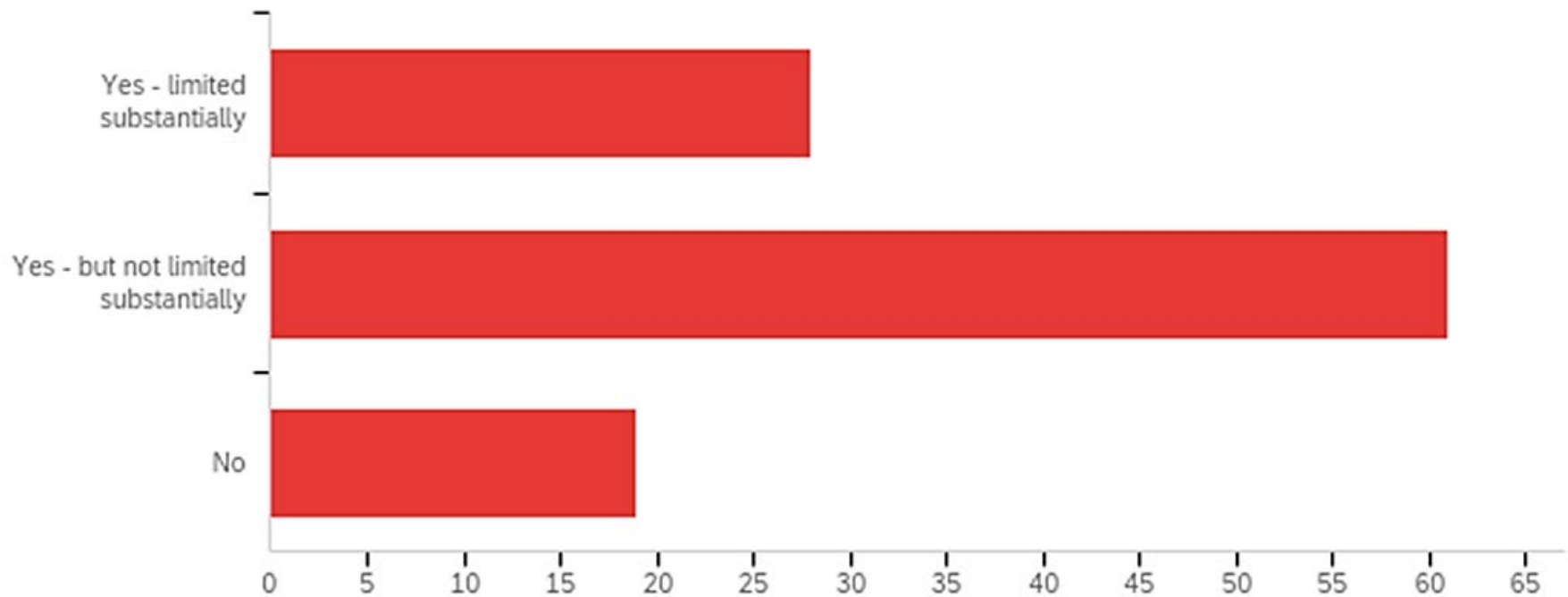


GSP Evaluation

- Running from Feb 2022 to March 2023

Participants	N=111
Male	50%
Female	48%
Non-binary	2%
British	90%
Over 55	33%
Retired or unable to work	54%

Health status of participants



What nature activities did people do?

GSP activities	N	%
Gardening	35	64%
Food growing	2	4%
Conservation	0	0%
Green exercise	9	16%
Crafting	3	5%
Bushcraft (e.g. forage, tool making, firecraft)	1	2%
Yoga or other mind-body activity	0	0%
Other*	5	9%
Total	55	100%

Impact on wellbeing

	ONS-4	Before Mean	Std Deviation	Threshold	After Mean	Std Deviation	Threshold
1	Overall, how satisfied are you with your life nowadays?	5.81	2.22	Medium	7.6	2.0	High
2	Overall, to what extent do you feel that the things you do in your life are worthwhile?	6.05	2.42	Medium	7.9	2.0	High
3	Overall, how happy did you feel yesterday?	5.75	2.56	Medium	7.7	2.2	High
4	Overall, how anxious did you feel yesterday?	6.12	2.75	High	5.4	2.9	Medium

Impact on anxiety and depression

	Before			After		
HADS Subscale	Mean	Standard Deviation	Threshold	Mean	Standard Deviation	Threshold
Anxiety	11.4	4.6	Moderate Anxiety	9.2	4.9	Mild Anxiety
Depression	8.50	4.5	Mild Depression	6.0	4.7	Normal

A close-up, low-angle shot of a tree's canopy, showing numerous bright green, oval-shaped leaves with prominent veins. The leaves are densely packed, and the background is a soft, out-of-focus green, suggesting a sunlit forest. The text "Future work" is centered in the middle of the image in a bold, orange, sans-serif font.

Future work

Understanding role of nature-based activities to support healthy ageing:

- Preserve physical functioning
- Reduce risk of frailty
- Promote good mental health (especially among socially isolated)
- Offer purpose and meaning



Research Overview

Cardiac Care and Education

Epidemiology and Cancer Statistics

Health Services and Policy

Mental Health and Addiction

Our research

Addictive behaviours and public health interventions

Brief psychological therapies

Closing the Gap

Economics of addiction and mental health

Forensic Mental Health

Mental and physical multimorbidity

Mental health evidence synthesis

Natural Environments and Mental Health



This theme focuses on the inter-relationship between our natural environment and mental health. It is an interdisciplinary and pan-faculty collaboration between academic partners at York and with external stakeholders in the NHS and public sector. Our work in this space is supported by the [York Environmental Sustainability Institute](#) which facilitates environmental sustainability research across the sciences, social sciences, and arts and humanities, adding value and synergizing existing strengths to tackle the complex challenges of sustaining productive, resilient and healthy environments. Additionally, our work addresses the strategic challenge to embed sustainability into research and teaching and campus operations through the [York Environmental Sustainability Academy](#).

Central to this research theme is work on evaluating the clinical and cross-sectoral effectiveness of nature-based interventions to support childhood, adolescent, and adult mental health. Nature-based interventions involve a wide range of activities such as social and therapeutic horticulture (using gardening, food growing and plants to support wellbeing); care farming (involving the therapeutic use of



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