ECO ANXIETY

Joanna Shelton

AIMS FOR TODAY

To understand

- What is eco-anxiety
- Who is impacted
- Why it matters
- Who cares
- Approaches

WHAT IS ECO ANXIETY?

- Negative affect and behaviours, ruminations and anxieties related to our impact on the planet and the permanent changes in the world around us (Hogg et al., 2021)
- Anxiety related to ecology and climate circumstances (Kurth & Pihkala, 2022).
- Related to other mental health but is separate and distinct and can thus be measured as a phenomenon in its own right (Hogg et al., 2021; Kurth & Pihkala, 2022).

Definitions of Eco Anxiety

Hickman et al. (2021) describe eco-anxiety as feelings of sadness, anxiousness, anger, powerlessness, helplessness, guilt, loneliness and grief (see also (Coppola & Pihkala, 2023; Gunasiri et al., 2022; Kurth & Pihkala, 2022; Pihkala, 2020b)

Gislason et al. (2021) include the emotions of anger, frustration and helplessness.

Liu (2022) and Myers et al 2021 describes eco-anxiety in more impactful terms, including tiredness and anxiousness concerns, feeling alone, alienated and helpless and leads to cognitive dissonance.

Guthrie (2022) takes this one step further and describes eco-anxiety as a fear of death and that we are grieving for the planet and our own lives.

Other people have described eco-anxiety as grief for the world around them or guilt over what humans are doing to the world (Coppola & Pihkala, 2023; Ojala, 2013).

RELATED TERMS

- Eco-grief,
- Eco-guilt,
- Solastalgia.
    - a portmanteau of the words solace and nostalgia,
    - Australian philosopher, Albrect (cited in Krieg & Toivanen, 2021),
    - describes a sense of loss felt in response to human change in the natural environment.
    - Albrecht, 2005; Cianconi et al., 2020; Gislason et al., 2021; Pihkala, 2020a

HOGGS SCALE

"Over the last 2 weeks, how often have you been bothered by the following problems, when thinking about climate change and other global envi- ronmental conditions (e.g., global warming, ecological degradation, resource depletion, species extinction, ozone hole, pollution of the oceans, deforestation)?"

1. Feeling nervous, anxious or on edge
2. Not being able to stop or control worrying
3. Worrying too much
4. Feeling afraid
5. Unable to stop thinking about future climate change and other global environmental problems
6. Unable to stop thinking about past events related to climate change
7. Unable to stop thinking about losses to the environment
8. Difficulty sleeping
9. Difficulty enjoying social situations with family and friends
10. Difficulty working and/or studying
11. Feeling anxious about the impact of your personal behaviours on the earth
12. Feeling anxious about your personal responsibility to help address environmental problems
13. Feeling anxious that your personal behaviours will do little to help fix the problem

- Response scale: 0 = not at all, 1 = several of the days, 2 = over half the days, 3 = nearly every day.

WHO IS IMPACTED?

- Worldwide - ie Australia (Gunasiri et al., 2022; A. Kelly, 2017) and Finland (Pihkala, 2022), with normally 1/3 of participants indicate eco-anxiety (Arcanjo, 2019).
- Coppola and Pihkala (2023) Students from USA and Finland had similar concerns and prevalence of eco-anxiety (around 60%)
- Leonhardt et al., (2022) only around 30% participants reported eco-anxiety
- Those who experience a significant climate event have a different sense of eco-anxiety (Cianconi et al., 2022). Ie in the Philippines or Australia – more urgent and real experience than temperate regions.
- Hickman et al. (2021) interviewed students from 10 countries, showing similarities across countries- 59% indicated they were very or extremely worried about climate change and 84% of respondents were at least moderately worried.

AGES?

Often seen as a young person's problem

- Hickman's study focused on young people and teenagers, and it has been suggested that this age group may be particularly susceptible to eco-anxiety.
- Clayton (2020) – those under 25 more likely to indicate they suffered from eco-anxiety than older people.
- Gislason et al. (2021) - eco-anxiety was experienced more by children and adults than adolescents.
- Leonhardt et al. (2022) - teenagers not very concerned about climate change.
- Pihkala (2020b) found solastalgia was experienced in greater numbers amongst older people than younger people.

So, maybe a cultural expectations of age?

- One of the identified concerns has been the lack of action and interest from governments worldwide (Arcanjo, 2019; Gislason et al., 2021; Hickman et al., 2021)
- Young people may see older generations as possessing the power to effect change but unwilling to do so.
- But Phillips (2022) highlights the vulnerability felt by older people and the sense of a loss of control over their environment.

WHO IS IMPACTED?

Searle & Gow (2010a) - people under 35, females and anxiety.

Pihkala (2020a) - women express negative emotions such as sadness, men express anger.

Durham (2021) Geographically more likely to suffer the consequences of climate change and biodiversity loss, - climate refugees

Specific location (ie coastal) (Phillips, 2022; Usher et al., 2019).

Kelman et al. (2021) climate change and small island nations overlooked

Coffey et al., (2021) – more needs to be done looking at Non-western countries .

GOVERNMENTS

Diffey et al. (2022) put forward a view of 23 young people who felt they were being overlooked regarding eco-anxiety and the environment.

They suggest that older generations are not taking their concerns seriously, and younger people are being left out of the policy decisions, exacerbating their anxiety about the world around them.

Excluded from decision-making and the perception of a lack of power is and lack of confidence in governments worldwide to tackle or indeed to take climate change seriously (Gislason et al., 2021; Hickman et al., 2021; Jones & Davison, 2021).

The lack of government action has led to eco-anxiety being experienced by all areas of society, not just the young or vulnerable.

IS ECO-ANXIETY A PROBLEM?

Eco-anxiety is a rational response to the world around them (Barnes, 2022).

Factors correlated include

- low carbon footprint,
- concerns about climate change,
- concerns about biodiversity loss and other areas related to environmental concerns (Cianconi et al., 2022; Cianconi et al., 2021; Clayton, 2020).

People who score higher on eco-anxiety measures tend to be those who are also more active in ecological ways (Jain & Jain, 2022).

Eco-anxiety a catalyst for environmental activism (Kurth & Pihkala 2022) increase personal and planetary well-being.

Maybe eco-anxiety is needed to promote environmentally friendly behaviours and activism.

Eco-anxiety is an adaptive response to climate change (Clayton, 2020; Hassen et al., 2020).

Eco-anxiety could be viewed as a positive and caring response to the world.

RATIONAL

Eco-anxiety is a rational response

In the UK, for every degree over 18°C (Arcanjo, 2019) suicide increases by 0.8%

Climate change has negative impact on physical activity through air pollution, climate-associated disasters and extreme temperatures (Bernard et al., 2021)

Clayton (2020) - air pollution and air particles are likely to be linked to cognitive decline in older adults and behavioural problems in children.

Therefore eco-anxiety suggests people are assessing their surroundings and life rationally and responding in the best way possible to life-changing issues.

COPING STRATEGIES

Kelly (2017)

- Get in touch with emotions
- Practice self-care
- Talking to a psychologist
- Space away from the issues
- Find a community that understood
- Look out for others and vice versa
- Informing and learning,
- Educating others
- Spending time in nature
- Creative pursuits

Promotes resilience and a proactive mindset

MORE COPING

Godden et al., 2021; Whomsley, 2021 and Baudon & Jachens (2021), recommend

- Connecting with nature
- Finding social groups
- Move from a catastrophe mindset to a less black-and-white approach by adopting mindful self-compassion and gratitude practices.
- Working on campaigning or activism was vital in both addressing the root causes of eco-anxiety and buffering the negative impact.

THERAPIST RECOMMENDATIONS

Pihkala (2020a)

- Find a place to deal with emotions - talk to other people.
- Keep a personal diary
- Get involved in actions
- Be informed about climate initiatives and solutions being undertaken,
- Practising mindful self-compassion and gratitude,
- Reflecting on your own ecological autobiographies
- Having a platform to be heard (Cianconi et al., 2022; Leonhardt et al., 2022).

CASE STUDIES

Eriksen (2003)

- Story telling – through narrative and create own ending.
- Guest expertise to support learning
- Focus on end with upbeat note

Wang et al. (2023)

- Interdisciplinary storytelling
- motivational and actionable
- Problem solving and positive
- Staff and students access central support and information.

Gibbemeyer et al. (2023)

- story-like approach to explore emotions.
- journey from emotions, understanding these and how they can promote activity,
- to identifying what brings joy and finishing up on a positive note.

MORE CASE STUDIES

Hemsley (2022)

- Interested in somatic experiences, so used sensory and physical activities
- useful to explore emotions - bodily expressions

Duram (2021)

- interdisciplinary and active learning.
- Real and mock activities – ie a mock global climate summit.
- focus on the agency of the students by empowerment,
- Identify hope through critical thinking,
- Teach feasible goals,
- Community actions.
- simulated experiences and games empowered participants and gave confidence to navigate real-life versions.
- Staff need educating and good source of information

ECO-ANXIETY AND EDUCATION

- Understand the direction of an organisation – empowering and buffers negative aspects of eco-anxiety (Parry et al., 2022).
- Develop grass roots leadership (Diffey et al., 2022; Godden et al., 2021; Whomsley, 2021).
- Knowledge is a predictor of constructivist hope, which helps students cope with eco-anxiety (Poeck et al., 2022; Ratinen, 2021).
- Acknowledge eco-anxiety and ambiguity in feelings and actions when studying ecology and climate change (Pihkala, 2020c).
- We may need tools to manage emotions and potential responses (Coppola & Pihkala, 2023).
- Community and social networks are essential, as are local activism and self-expression (Gislason et al., 2021; Myers et al., 2021; Whomsley, 2021).
- For example, - learning about local environmental campaigns, finding out about climate activists and creating an ecological autobiography (Myers et al., 2021).

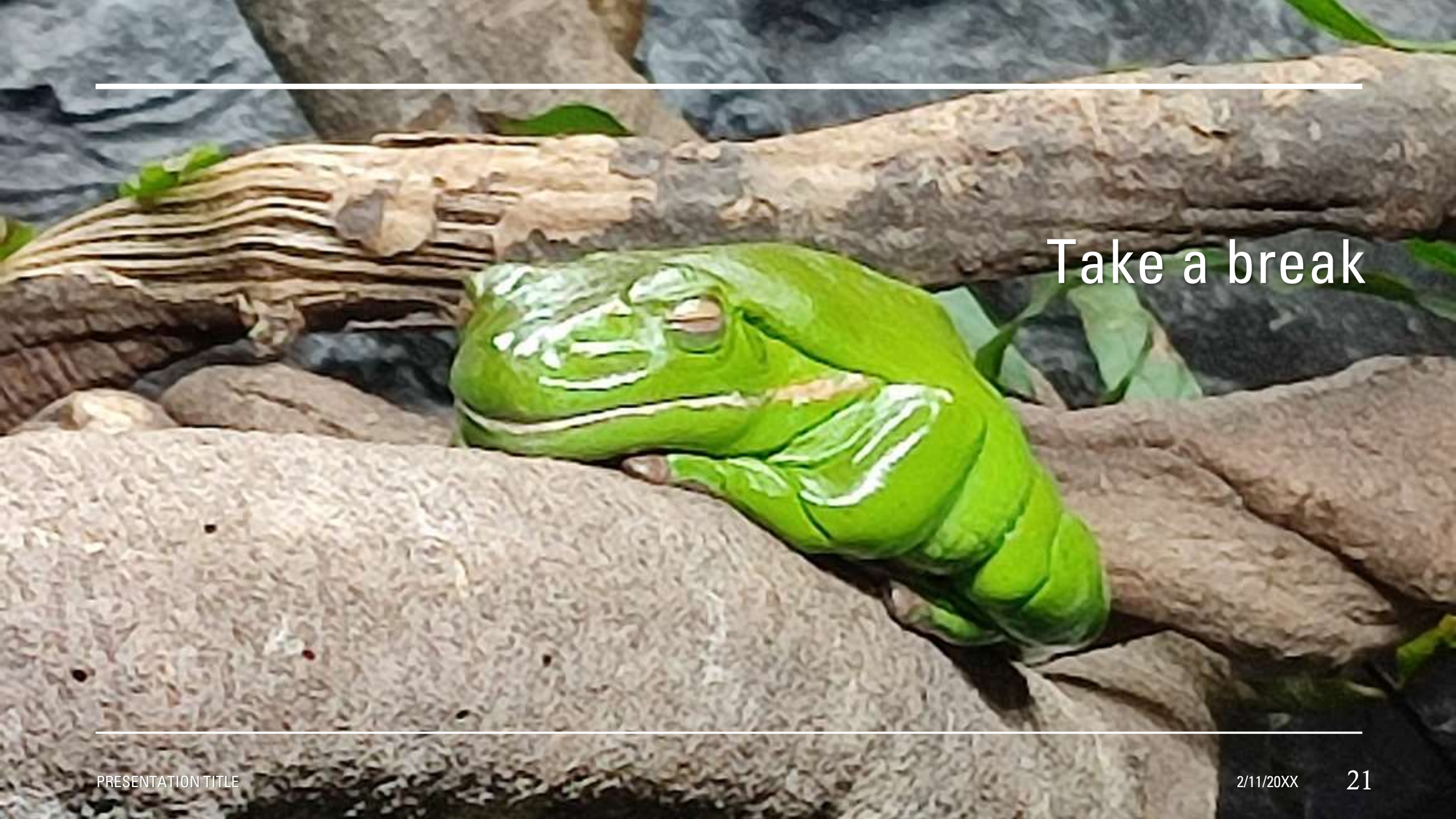
ACTIVE SUPPORT

Living with the climate crisis (Living with the Climate Crisis – Living with the climate crisis – psychologically-based groups to help people respond creatively and collectively to our global dilemmas) offers support for groups to discuss and take actions on climate change.

- Climate Psychology Alliance - https://www.climatepsychologyalliance.org/index.php/find-support
- Force of Nature - https://www.forceofnature.xyz/educators
- Natural History Museum - https://www.nhm.ac.uk/discover/how-to-cope-with-eco-anxiety.html
- Greenpeace https://www.greenpeace.org.uk/news/eco-anxiety-how-to-find-radical-hope-in-a-climate-crisis/
- The BBC's take https://www.bbc.com/future/article/20220315-how-eco-anxiety-affects-childrens-minds or https://www.bbc.co.uk/teach/teacher-support/reducing-anxiety-about-climate-change/zbyvrmn
- Tips on how to cope - https://only.one/read/how-to-cope-with-your-eco-anxiety-five-inspiring-tips

ACTIONS TO BE TAKEN

1. Create an ecological autobiography – ie look at how you impact the environment – for good and not so good.
    1. You may want to start with your carbon footprint or water use
    2. Plan any reductions etc
2. Find out about what is happening locally – especially where you can meet other people
3. Find out about actions you can take/campaigns you can support locally, nationally and internationally
4. Spend time in nature – decide how and when
5. Decide on your approach – Pankhurst or Fawcett?
6. Mindful compassion


Take a break

NATURE AS THERAPY

Nature as therapy looks at the human in an eco-system

Linda Buzzell – from her book Ecotherapy

"ecotherapy represents a new form of psychotherapy that acknowledges the vital role of nature and addresses the human-nature relationship."

Biophilia

Fromm (1952) – love for humanity and nature (as opposed to necrophilia – life-limiting and machines ;-))

Wilson (1984) – Affiliation for natural life

BIOPHILIA

Evolutionary development

Humans evolved with the natural world and have a desire to connect and a dependence on it.

Shipman (2010) -3 stages of evolutionary development.

1. Humans develop tools to increase access to animal food and provisions;
2. Humans developed new forms of information storage, including the symbolic, which were normally animal-centric, and acted as a form of development of tools and communication;
3. Domestication of animals, which altered human's life style and ecological niche.

Evidence:

- seeing an animal at rest suggests that animal is neither fearful or hunting, and indicates local safety, from which humans can draw comfort (Fine, 2010).
- Being able to understand or "read" nature could give an evolutionary advantage (Radmore, 2013), such as navigating or finding water and shelter (Gooley, 2014).
- Babies from a very young age seem to preferentially respond to animals over any other object, whether it is moving or not (Melson, 2006).
- But it is hard to prove – maybe that biophilia is a biological tendency for people to learn from and about nature, and thus incorporates a psycho-social aspect to the theory (Lumber, Richardson and Sheffield, 2017).

SOME TERMINOLOGY

- Eco-psychology
- Eco-therapy
- Green wellbeing
- Green prescribing (green social prescribing)
- Green exercise
- Wilderness therapy
- Forest bathing (shinrin-yoku)
- Nature Therapy
- Equine therapy
- Pet therapy
- Animal therapy
- Horticultural therapy
- Green neighbourhoods
- Biophilic design

Look these terms up and find a definition you are happy with.

Do these bring up any questions or concepts?

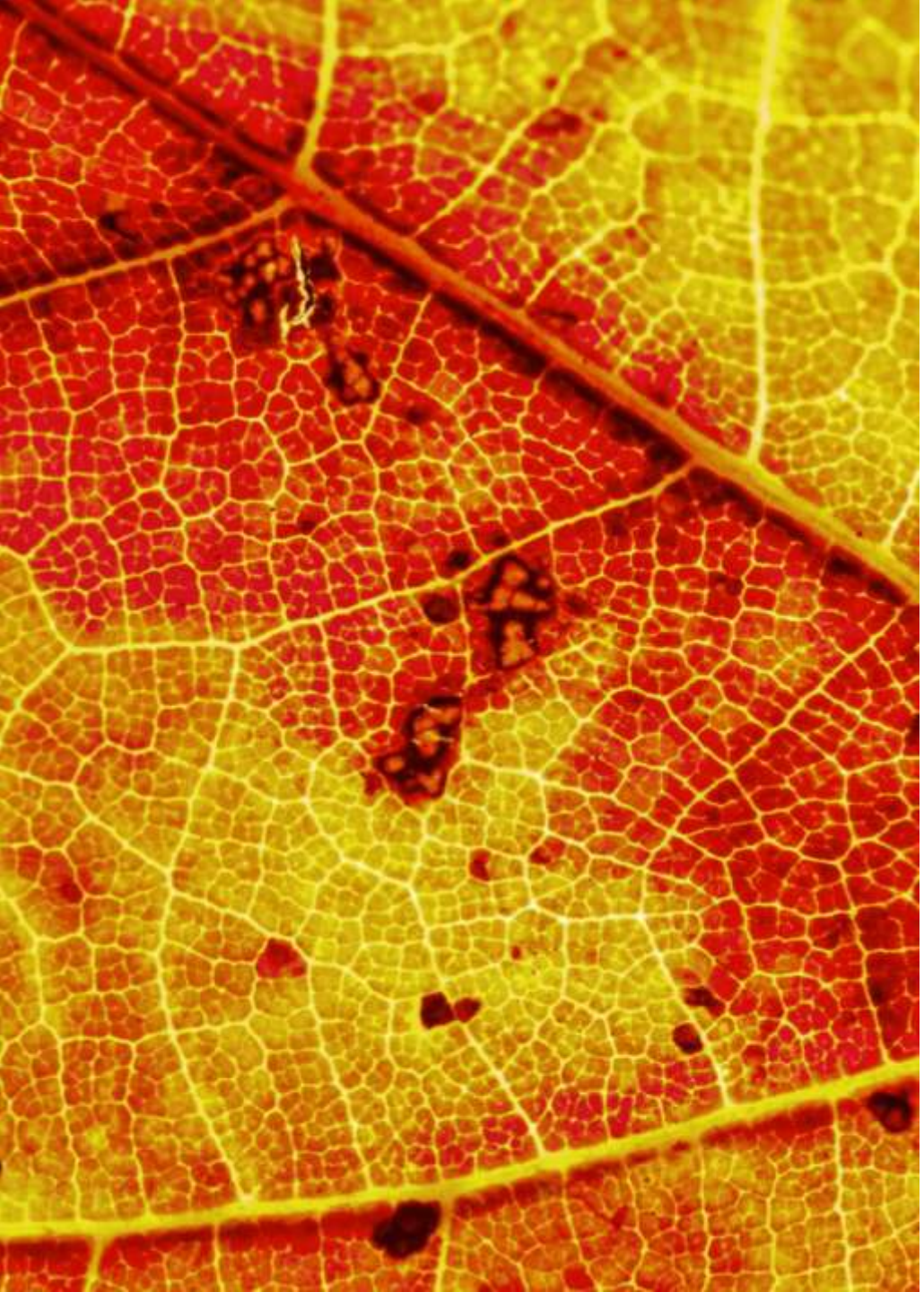

ORIGINAL BUILDING OF THE RETREAT, YORK. INSTI

HISTORY OF NATURE THERAPY

- Early modern period – move from rural environment to urban areas
- Less direct involvement with animals and nature
- Eliminated need for value systems designed to segregate humans and nonhumans into separate moral domains
- Potential of using animals as therapy first recognised during this time period
- The York retreat was the first mental institution to use companion animals as therapy
- Serpell 2015

The benefits of nature

Area Impacted by Green Environments	Key Studies
Self Esteem	(O'Brien and Murray, 2007; Pretty et al., 2007; Barton, Hine and Pretty, 2009; Reed et al., 2013; Zhang, Howell and Iyer, 2014; Ettema and Smajic, 2015; Barton et al., 2016; Husk et al., 2016; Rogerson et al., 2016)
Stress and Anxiety	(Moksnes, Espnes and Karin Moksnes, no date; Pretty et al., 2007; Nordh, Grahn and Währborg, 2009; Kjellgren and Buhrkall, 2010; Barton et al., 2012; Weng and Chiang, 2014; Bratman et al., 2015; Cohen-Cline, Turkheimer and Duncan, 2015; Martyn and Brymer, 2016; Wolf et al., 2017; Lawton et al., 2017)
Depression Symptoms	(Barton, Hine and Pretty, 2009; Nordh, Grahn and Währborg, 2009; Barton et al., 2012; Berman et al., 2012; Bragg, Wood and Barton, 2013; Pearson and Craig, 2014; Cohen-Cline, Turkheimer and Duncan, 2015; Fenton, 2016; van den Berg et al., 2016)
Heart Rate	(Kaplan, 1995; Hartig, Kaiser and Bowler, 1997; Faber Taylor et al., 2002; Woods and Moscardo, 2003; Ottosson and Grahn, 2005; Berman, Jonides and Kaplan, 2008; Mayer et al., 2009; Cole and Hall, 2010; Ewert et al., 2011; Nordh, 2012; Berman et al., 2012; Pasini et al., 2014; Pearson and Craig, 2014; Weng and Chiang, 2014; Bagot, Allen and Toukhsati, 2015; Mantler and Logan, 2015; Sauer et al., 2015; Valtchanov and Ellard, 2015; Collado and Staats, 2016; Ambrey and Cartlidge, 2017; Zhang, Kang and Kang, 2017; Twohig-Bennett and Jones, 2018; Brymer et al., 2018; Franěk et al., 2018)
Blood Pressure	(Song et al., no date; Ottosson and Grahn, 2005; De Kort et al., 2006; Ae et al., 2010; Lee et al., 2011; Duncan et al., 2014; Lanki et al., 2017; Twohig-Bennett and Jones, 2018)
Attention	(Ulrich et al., 1991; Hartig et al., 2003; Ottosson and Grahn, 2005; Björk et al., 2008; Ae et al., 2010; Mao et al., 2012; Tsunetsugu et al., 2013; Duncan et al., 2014; Lanki et al., 2017; Ohe et al., 2017; Song, Ikei and Miyazaki, 2017; Twohig-Bennett and Jones, 2018)
Cognition	(Keng, Smoski and Robins, 2011; Davis, 2012; Keniger et al., 2013; Berto, 2014; Clayton et al., 2014; Bratman et al., 2015; Lee et al., 2015; Ohly et al., 2016; Collado and Staats, 2016; Gidlow et al., 2016; Lawton et al., 2017)
Immunity	(Li et al., 2007; Lovell et al., 2015; Song, Ikei and Miyazaki, 2016)
Mood	(Pretty et al., 2005, 2007; Berman, Jonides and Kaplan, 2008; Berto, Massaccesi and Pasini, 2008; Barton, Hine and Pretty, 2009; Barton and Pretty, 2010; Mao et al., 2012; Barton et al., 2012; Berman et al., 2012; Tsunetsugu et al., 2013; Duncan et al., 2014; Doherty, Lemieux and Canally, 2014; Aspinall et al., 2015; Gidlow et al., 2016; Rogerson et al., 2016; Collado and Staats, 2016; Han, 2017; Bielinis et al., 2018)
Crime Rates	(Herzog and Chernick, 2000; Gladwell et al., 2013; Stack and Shultis, 2013; Elsey et al., 2018)
Concentration	(Faber Taylor et al., 2002; Ottosson and Grahn, 2005; O'Brien and Murray, 2007; O'Brien, 2009; Taylor and Kuo, 2009; Ae et al., 2010; Kjellgren and Buhrkall, 2010)
Salivary Cortisol	(Ae et al., 2010; Lee et al., 2011; Thompson et al., 2012; Roe et al., 2013; Jiang, Chang and Sullivan, 2014; Tyrväinen et al., 2014; Gidlow et al., 2016; Twohig-Bennett and Jones, 2018)
Mortality	(Richardson and Mitchell, 2010; Van Den Berg et al., 2015; Gascon et al., 2016; McMagnus et al., 2016; Twohig-Bennett and Jones, 2018)
Creativity	(Bateson and Nettle, no date; Atchley, Strayer and Atchley, 2012; Markowitz et al., 2012; Tyrväinen et al., 2014; Bruni et al., 2017; Lumber, Richardson and Sheffield, 2018)
Motivation and Compliance	(Hartig, Kaiser and Strumse, 2001; O'Brien and Murray, 2007; Dawson and Jensen, 2011; Thompson et al., 2012; Gladwell et al., 2013; Reed et al., 2013)
Physical Health	(Pretty et al., 2007; Hansen-Ketchum, Marck and Reutter, 2009; O'Brien, Townsend and Ebden, 2010; Lee et al., 2011; Martens, Gutscher and Bauer, 2011; Thompson et al., 2012; Gladwell et al., 2013; Rakhshandehroo et al., 2015; Ettema and Smajic, 2015; van den Berg et al., 2016; Artz and Davis, 2017; Cox et al., 2017; Bamberg, Hitchings and Latham, 2018; Repke et al., 2018; Ferguson et al., 2018)
Social Inclusion	(Ryan et al., 2009; Wilson et al., 2010; Bragg, Wood and Barton, 2013; Doherty, Lemieux and Canally, 2014; Bagot, Allen and Toukhsati, 2015; Restall and Conrad, 2015; Artz and Davis, 2017; De Bell et al., 2017; Cox et al., 2018)



WAYS TO WELL-BEING

In 2008 NEF commissioned a big review into wellbeing, concluding there were 5 ways to well-being

Namely

- Connecting
- Taking notice
- Being active
- Learning
- Giving

These have been used in green wellbeing as well as other areas of wellbeing to explore the concept and promote positive psychology.
(Abdallah, Steuer and Marks, 2008; Michaelson, Mahony and Schifferes, 2012; Bragg, 2014; Lovell et al., 2014; Lumber, Richardson and Sheffield, 2017b)

CONNECTING

This concept is about being in touch (in all meanings of that word) with people and surroundings.
This could mean through physical interactions, emotional or other.

In green wellbeing the concept has been explored through interpersonal connections,

It can also be argued that connection to nature or attachment to animals should be included here

(Bush, 2001; Saunders et al., 2018, Bragg et al, 2015; Elsey et al, 2018, Balmford et al., 2007; Fraser et al., 2018; Smith et al., 2018)

TAKING NOTICE

In animal aided interaction Friedman found simply being aware of an animal's presence could stimulate the parasympathetic nervous system and decrease blood pressure

This is the underlying tenant of mindfulness – being aware of the here and now and as such a lot of research has been done on how this improves wellbeing overall

In Green wellbeing, this is highlighted as part of Forest NHS, which considers the role of mindfulness and the green environment.

Noticing and mindfulness has been used in sit space and tracking/bushcraft/hunter gatherers, for connecting with nature, and thus the concept has been explored in many different cultures, with nature.
These are very common practise in bushcraft, although little research has been undertaken on them.

Moreover noticing and mindfulness interventions in the presence of animals have been shown to increase compliance and thus outcomes.

(Bohlmeijer et al., 2010; Keng, Smoski and Robins, 2011; Loughton et al., 2015; Randal, Pratt and Bucci, 2015; Gu et al., 2016; Spijkerman, Pots and Bohlmeijer, 2016, Unsworth, Palicki and Lustig, no date; Jaeggi, Berman and Jonides, 2009; Ambrose-Oji, 2013; Takayama and Kagawa, 2013, How Nature Heals, no date; Walton, 2015; Fenton, 2016, Schramm, Hediger and Undine E Lang, 2015; Schramm, Hediger and Undine E. Lang, 2015; von Uexkull, 2015; Jackson-Grossblat, Carbonell and Waite, 2016)

BEING ACTIVE

A large area of research in green exercise

Generally being outside has better outcomes than inside, although views of nature increase wellbeing over views of blank wall.

Green exercise has looked at this, finding exercise in a “green” environment had an impact on mood and self esteem, over and above other exercise groups.

Further research has focused on compliance and physiological measures of BP, heart rate, salivary cortisol, self-ratings of health and EEG

(Barton and Pretty, 2010; Barton et al., 2012, Calogiuri, Patil and Aamodt, no date; Pretty, 2004; Hansmann, Hug and Seeland, 2007; Barton and Pretty, 2010; Barton et al., 2012, 2019; Gladwell et al., 2013; Duncan et al., 2014; Aspinall et al., 2015; Cohen-Cline, Turkheimer and Duncan, 2015; Rogerson, 2016)

Serpell, 2015

LEARNING

- Learning and knowledge acquisition are often the main aim of environmental education and conservation communication
- Potentially link with Pro-environmental behaviours

(Falk et al., 2007; Moss, Esson and Bazley, 2010; Clayton et al., 2014b; Jensen, 2014; Jensen, Moss and Gusset, 2017)

GIVING

Giving to the community, or to a cause etc

It can be said to fit with Pro-environmental behaviour (PEBs) as a means of measuring how much someone is prepared to put “back” into the community/world as a whole.

PEBs have been shown to increase through some interactions with nature

(Markle, 2013; Clayton et al., 2014b; Powell and W Bullock, 2014; Moss, Jensen and Gusset, 2015, 2017; Grajal et al., 2017)

A project on the five ways to wellbeing

- The project investigated if people's wellbeing and nature connectedness were impacted by accessing remote (written or audio) nature based mindfulness sessions.
- The results found:
  - People who lived within walking distance of accessing nature had better initial wellbeing.
  - Remotely accessed nature based mindfulness interventions are effective at increasing people's wellbeing.
- Therefore to aid citizen wellbeing local councils should focus on providing access to nature reserves through out the area. Town parks are not associated with the same wellbeing increase.
- It is proposed that there is investment in nature based mindfulness sessions that are disseminated via remotely accessed methods such as an app.