Halpin Trust 'Wildflower Collective' Project Interim Report 2022

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Introduction

The creation of flower-rich habitats is an important action to help promote biodiversity, capture carbon and connect people to nature. Many landowners, farmers and landowning businesses in the South West have been creating these new habitats for these reasons. Our 'Wildflower Collective' project aims to understand the benefits of wildflowers to the environment, people and economy. This interim report highlights the key activities and results from April 2021 and our plans until October 2022. (Please also see our summer and autumn newsletters for more details).

Wildflowers for the environment

Wildflower 'Meadow Matches' 2021 (target 10 hectares)

- Started to restore **25 hectares (25 rugby pitches) of species-rich grassland** by transferring green hay from the 'donor' sites to the 'receptor' sites in Cornwall.
- Discovered a new 16 hectare wildflower meadow 'donor' site with 150 recorded plant species at Bodmin Airfield in Cornwall, which has provided valuable species-rich green hay.
- Collected soil samples from five 'Meadow Match' sites to help with match-making.

Habitat creation for potential exemplar sites (target 10 hectares)

- **5.8 hectares** of Red campion, Cornflower and Corncockle crop at Trewithen estate.
- **Red campion** display at Trebah garden.
- 3750m^2 of annual and perennial **wildflower margins** at Tregleath farm, suppliers of Trewithen dairy, sown in time for an engagement day for all of Trewithen dairy suppliers.
- 800m^2 **perennial wildflower meadow** display at the entrance to Duchy of Cornwall Nursery.
- Approximately 800m^2 **cornfield annual wildflower** display at Tregullas farm supporting their school visits and engaged their local community (see below).

Photo: Annual meadow at Tregullas farm created from seed sourced from the Lost Gardens of Heligan. Photo by Hannah Slim

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"We did a few school visits with it. Using hula hoops as quadrants and counting species and bug hunting in the flowers and comparing with the grassland and hedges. The children also picked bunches to take back to school to decorate the classroom… As the flowers are quite close to the village where people walk to the [Lizard] point it brings them a lot of pleasure". Rona Amiss, Tregullas Farm, The Lizard, Cornwall

Pollinator surveys

We have started to conduct pollinator surveys (Figure 1) at five of our wildflower meadows, and wildflower crop displays with Lucy Mooney, an undergraduate student from the University of Exeter.

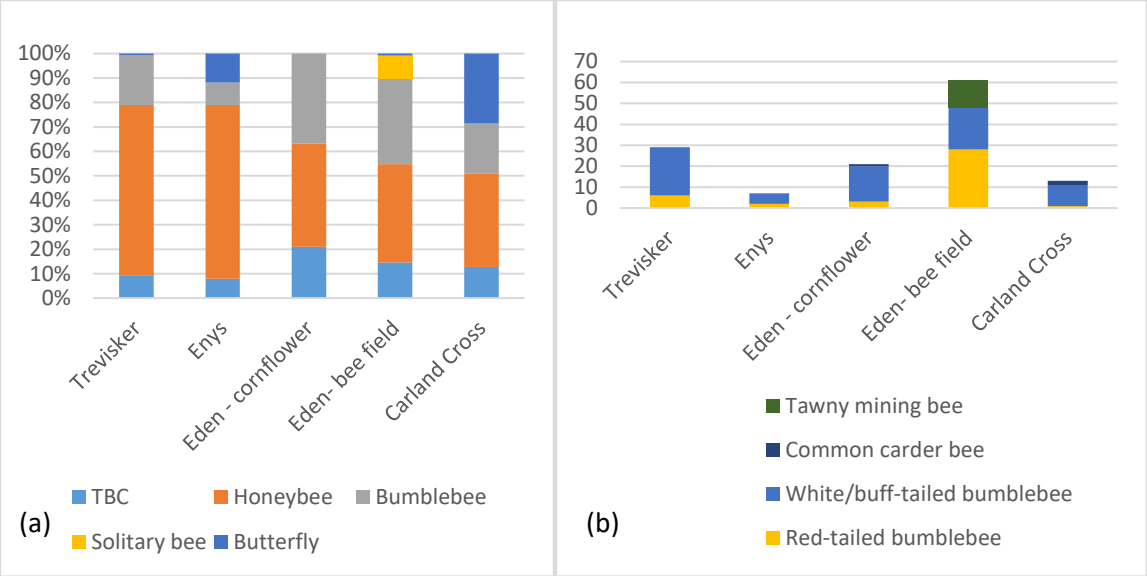


Figure 1. Preliminary results of initial pollinator surveys at five wildflower displays and cropping sites for the proportion of different pollinator groups (a) and total observations of species of wild bumblebees and solitary bees (b). 'TBC' group is still to be identified in the lab.

Wildflowers for people

- Distributed two newsletters to stakeholders on updates on the wildflower collective project.
- Conducted a study in collaboration with the Lost Gardens of Heligan using their 4.65 hectare annual wildflower display of Cornflowers, Corn marigolds, Corn camomile and Poppy.
- Audited the activities that visitors undertook in these wildflower displays and captured visitors' feedback on their experience.
    - An anonymous **online engagement survey** where visitors could scan a QR code and provide feedback on their experience at the wildflower display.
    - An **on-site observational survey** of activities displayed by participants visiting the wildflower display using the System for Observing Play and Recreation in Communities (SOPARC) method.

RESULTS: Online engagement survey

The majority of respondents reported a **positive experience in the wildflower meadow** (96%), 70% answered 'No' that the meadow was not the specific reason they visited the Lost Gardens of Heligan on that occasion, but 30% answered that the meadow was 'partially' the reason. 79% of respondents

answered **'Yes', they would visit again to see the wildflower meadow**. We also asked, 'What did you enjoy most about your experience in our wildflower meadow today?' The majority (59%) referenced something visual - the 'flowers', the 'colours' and 'view' of the meadow. This was followed by how it made the respondent feel (29%), e.g. 'peace' and 'calm' (Figure 2). Other answers referred to taking action, connecting with others and learning (12%).

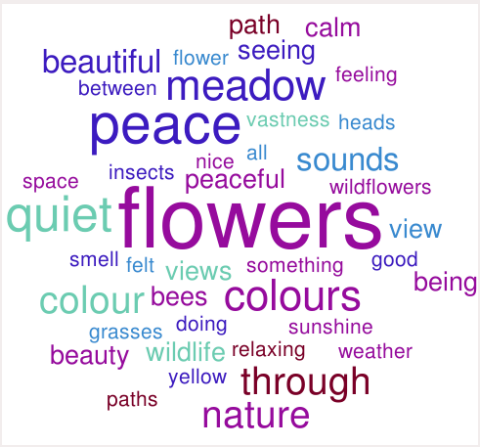
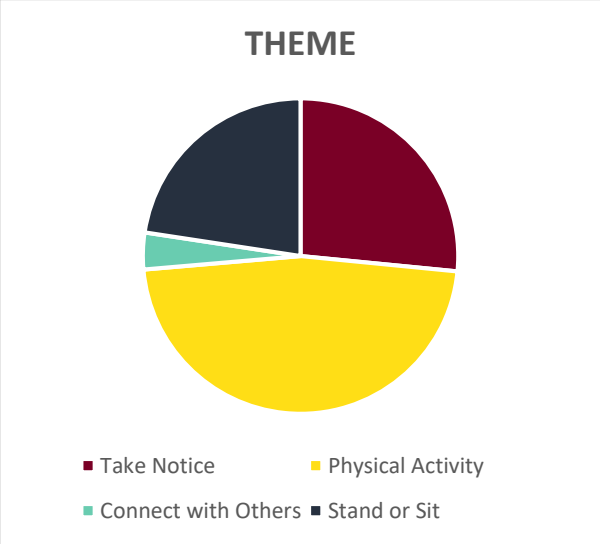


Figure 2. Word cloud of visitor responses to 'What did you enjoy most about your experience in our wildflower meadow today?'

"[I] *Would love to make my own small meadow at home.*"
"*I loved hearing all the sounds. I'm feeling a bit low today, and being here helped my heart.*"
"*I loved seeing a safe space for pollinators. It made me happy and was so beautiful.*"
"It was so beautiful it made even my children feel peaceful."

RESULTS: On-site observational survey



Activities were categorised by theme to correspond with three of the five steps to mental wellbeing; 'Take notice', 'Physical Activity' and 'Connect with Others'. We also included 'Stand or Sit' as a category. Results showed the **benefit of the meadow for both physical activity and engagement** (Figure 3)

Figure 3. Activity theme and specific activities categorised as 'Take Notice' for participants in the wildflower display at the Lost Gardens of Heligan.

Wildflowers for business

Footfall monitors

- We recorded **3312** visits during visitor opening hours using **footfall monitors** at the entrance of a wildflower display (25th August - 25th September).
- Adults and Seniors accounted for 68% of those visiting the meadow (£17.50 entrance fee), and 30% of respondents said the meadow was 'partially' the reason they visited
    - Therefore, the meadow display could be worth **at least £11,824 pa** in attracting visitors.

Wildflower Collective project next steps

The project has been given a no-cost extension to October 2022 with work being carried out 2 days per week. In this extra season we will undertake the following activities:

Wildflowers for the environment

- Continue 'Meadow Match' scheme to restore more species-rich perennial wildflower meadows.
- Run BEE-STEWARD computer simulations to compare the environmental benefits (in terms of bumblebee colony success) of annual mixes, perennial mixes and single-species crops.
- Continue pollinator surveys at our wildflower meadow and wildflower crop sites.

Wildflowers for people

- Repeat visitor engagement and footfall survey at the Lost Gardens of Heligan.
- Interview three 'donor' and three 'receptor' wildflower meadow site landowners.
- Collect visitor engagement data from four other wildflower display sites.

Wildflowers for business

- Review current status of wildflower seed industry in the UK in collaboration with Emorsgate.
- Analyse seed harvest yields and proportions of different species at exemplar sites.
- Estimate monetary value of annual mixes, perennial mixes and single-species crops. Include a new wildflower crop of Calendula used as a nutraceutical oil and grown in Cornwall.

The results of the above will be collation and disseminated as follows: a) Best Practice Guide for landowners, b) final workshop with stakeholders, c) scaling strategy document for influencers, and d) manuscript of research results.

Photo: Calendula grown in Cornwall for oilseed may be another crop that provides environmental, social and economic benefits

For more information, email Grace at g.twiston-davies@exeter.ac.uk

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