

Placing people at
the heart of Mining
Bee Conservation



The Wheal Buzzy Project

May 2018 – October 2020

Project Evaluation | October 2020



Ranndir a Dekter
Naturek a Vri Kernow

Cornwall
Area of Outstanding
Natural Beauty



HERITAGE
FUND

Funded by the National Lottery Heritage Fund
and Cornwall AONB Partnership



Abstract

Funded by the National Lottery Heritage fund, Cornwall's Area of Outstanding Natural Beauty Wheal Buzzy Project was a unique project focusing upon improving habitats for solitary bees within identified areas of 5 sections of the Cornwall AONB placing people at the very heart of the work undertaken.

Working to address

- **Loss of habitat** – through a series of habitat recommendations for our community partners and larger landowners such as the National Trust
- **Understanding and awareness** – through practical actions such as plug planting, a series of engagement events and activities, development of online resources such as the [Solitary Bee Education Pack](#)
- **Encouraging groups and individuals to spend time within the AONB** through a series of walks and engagement events in conjunction with Wheal Buzzy Project

This report looks at the development of the Wheal Buzzy Project, how the above aims were broken down into our nine key deliverables. It also charts the project's progress towards achieving its aims and key deliverables, including explaining how it met key challenges like the Covid-19 pandemic between March and June 2020, as well as describing what worked well and what did not work so well. The engagement of groups, individuals and landowners alike to develop a greater understanding of the threats Mining (Solitary) Bees face and positive actions which can be taken to aid in their conservation.

Our response to the National lockdown as a result of the Covid – 19 pandemic how we developed the Wheal Buzzy Project to not only continue throughout restrictions but to also address some of the challenges which the wider communities faced. Such as providing additional resources to support our educational pack, encouraging our social media followers to take advantage of their local green spaces, develop observation and identification skills.

We also look at how the project has been received how perceptions and understanding of Solitary Bees has altered. What actions groups and individuals have taken through the projects influence, the legacy of the project and the future for Solitary Bee Conservation in the county.

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Patrick Saunders (Project Ecologist)
Sue James (Community Partner and County Councillor)
Mike Symonds (National Trust Area Ranger)
Mat Strevens (Trythal Primary School Head Teacher)

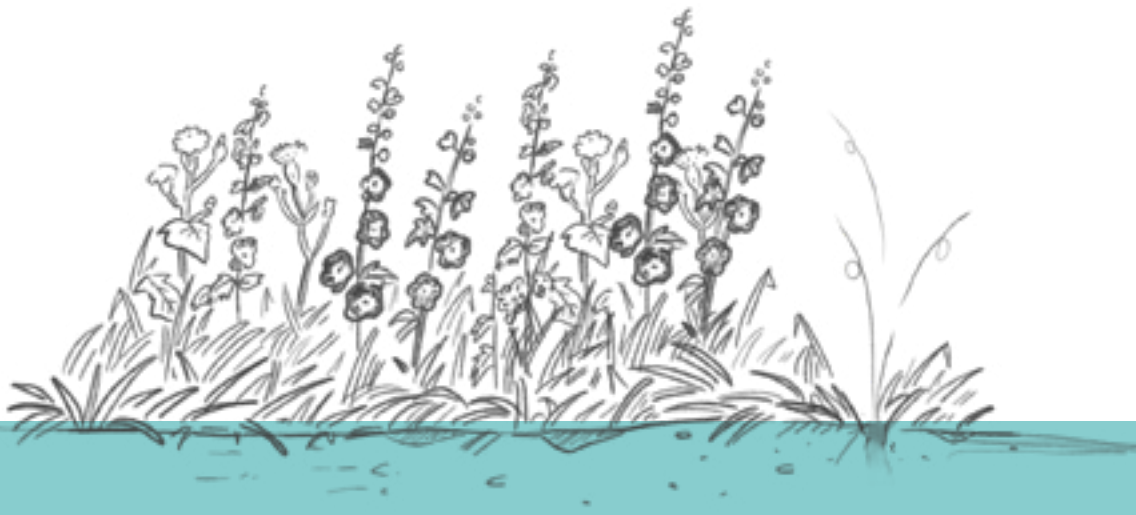
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The following appendices are available on request. Please contact us at info@cornwall-aonb.gov.uk for more information.

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Background and strategic context

The Cornwall Area of Outstanding Natural Beauty (AONB) is one of 46 AONBs across England and Wales that were designated following the 1949 National Parks and Access to the Countryside Act, with the same level of protection as the National Parks.

The Cornwall AONB forms 28% of the land area of Cornwall and is overseen by a partnership of 22 organisations, working together, committed to the protection and enhancement of the 12 geographic sections that make up the designated area.

The Partnership is supported by a small staff unit who take forward the actions and decisions of the partners, based upon a Partnership Management Plan (2016-22). This document sets out the policies to protect the AONB from harm, describes the special qualities of each of the 12 sections and outlines a series of agreed actions to enhance the area.

One of these actions is devoted to improving conditions for pollinators in the Cornwall AONB:

"Initiate a landscape scale project to benefit pollinators with the full participation of landowners, farmers and food and drink businesses".

Cornwall AONB Management Plan 2016-21, Action L



The Wheal Buzzy project

Solitary bees are the most threatened of Cornwall's pollinators.

The AONB is nationally significant for pollinators, having larger populations than anywhere else in the UK with 4 Priority Section 41 species (S.41), 7 Red Data Book, and 10 Nationally Scarce species present.

The AONB hosts 190 different bee species, and of these, 120 species are solitary mining bees. Despite the national significance of the AONB for its mining bee, many of these species have suffered a decline during the last 25 years, in many cases by the loss of over 50% of the remaining sites. This rate of decline raises the real prospect of extinction for many of these species within the next decade if no action is taken.

This decline arises through the following factors: -

- Lack of awareness of land managers to their needs
- Scrub invasion
- Intensive agriculture, including overgrazing in parts
- Fragmentation of sites



From 2016-17, the AONB commissioned Kernow Ecology to undertake a body of research in order to determine the threats to solitary bees across the 12 designated sections. The research would identify the scope of a project which would seek to address, and reverse, the significant decline of solitary bee species over the last 25 years.

The results formed the Wheal Buzzy Project, and a project-specific partnership was developed with 41 organisations including landowners, schools, colleges and community groups across a large part of the AONB. A successful funding bid was submitted to the National Lottery Heritage Fund in December 2017. This would match AONB funds, in-kind support from partners the National Trust and Green and Blue, as well as community group partner's volunteer time.



The Wheal Buzzy Project was a unique project focusing upon improving habitats for solitary bees within identified areas of 5 sections of the Cornwall AONB:

- West Penwith (between Sennen, St Ives and Madron),
- Godrevy Head/ Portreath,
- Marazion/ Porthleven,
- St Agnes and North Cornwall
- Trevoze, Pentire/ Port Quin, Tintagel/ Boscastle

WHEAL BUZZY LOCATIONS



Globally there are over 20,000 different species of bee; in the UK we have approximately 250 species, with solitary bees making up the greater proportion. There are more than 190 species of bee in Cornwall, of those 120 are solitary. They are so named because, unlike honeybees and bumblebees, they do not live in colonies. Solitary bees, in particular mining bees, are excellent pollinators. In some cases, they are far more efficient than their relatives. Many of the mining bees (*Andrena*) favour areas with high levels of soil disturbance and those sites with an abundance of fodder such as abandoned mines.



Project Vision, Aims and Approved Funding Purposes

The overarching vision of the Wheal Buzzy Project was by 2020 to have created a more sustainable network of mining bee habitats, within the iconic, former mining areas, for which the Cornwall AONB is internationally recognised for.

Sites will have continued support and be monitored by a more aware, better trained, healthier and involved network of local groups, Trusts, landowners, individuals and schools. They will work to protect and sustain these strengthened habitats in the long term based upon the shared experience of the project.

Project Aims

- 1. To support and enhance the nationally important AONB mining bee populations** through new habitat creation, by agreement on key stakeholder's land with more informed long-term management put in place by our project;
- 2. To place people at the heart of our mining bee conservation actions** by supporting and engaging local community groups, schoolchildren, students of our higher educational institutions, visitors, landowners and individuals. Undertake practical, training and learning activities that deliver lasting benefits to participants and embed sustained awareness raising activity after the project has completed;
- 3. To provide training and learning opportunities for local residents** in mining bee identification and conservation, as well as the practical work to create and maintain new habitats in ways that broaden traditional audience.
- Ensure mining bee habitats are better maintained and recorded long term, and create opportunities for a broader range of people to get involved in our AONB communities;
- 4. Increase the participation rate in outdoor activity within the AONB sections** in order to improve the health and wellbeing, social cohesion and enjoyment of our communities;
- 5. To ensure that the whole community can learn about plight of mining bees within the Cornwall Area of Outstanding Natural Beauty (AONB)** through a programme of events and activities. To create a self-sustaining framework for ongoing awareness raising of the needs of these bee species.



Having secured National Lottery Heritage Funding and permission to start in May 2018, the approved funding purposes agreed were to:

1. Procure an Ecologist to develop Management Plans for the 15 sites and to conduct specialist research
 2. Recruit a Project Officer
 3. Source a consortium of local growers to supply plug plants
 4. Create 22 hectares of habitat improvements across 15 sites with appropriate interpretation
 5. Deliver a minimum of 56 awareness events and talks across the project focus areas
 6. Deliver at least 100 Bee Healthy walks in partnership with Walking for Health and local groups and train 14 walk leaders
 7. Deliver an educational programme with 15 schools to include visits to sites and support for school-based site improvements
 8. Establish a linked network of volunteers to monitor mining bee populations
 9. Organise 8 bee identification sessions
 10. Hold at least 30 practical volunteer days for habitat improvements
 11. Create appropriate interpretation for each of the sites with project partners
 12. Produce a mining bee resource pack to support school-based learning to be available online
-

Progress against the Approved Purposes

1. Procure an Ecologist to develop Management Plans for the 15 sites and to conduct specialist research May 2018

A competitive procurement exercise was held resulting in the appointment of Kernow Ecology to deliver an agreed programme of work in the role of Project Ecologist and Specialist Contractor as set out in the brief in (appendix 1). This work involved a mixture of site surveys and drafting of recommendations for key sites, advice to schools on school ground enhancements, training of site managers and volunteer teams on solitary bee identification and land management techniques. The role would provide support to the project officer on the development of the Solitary Bee Education Pack, the carrying out of bee

surveys and follow up site surveys, as well as the development and support in the implementation of planting plans for a number of sites.

2. Recruit a Project Officer June - July 2018

Recruitment and interviews resulted in Charlotte Goodship appointed as the Wheal Buzzy Project Officer, commencing in the role during October 2018.

3. Source a consortium of local growers to supply plug plants.

Local Plant nurseries were invited to quote for the opportunity to supply plug plants to the project. These growers included:

- Bosavern Community Farm
- Heaven Scent Nurseries
- Kehelland Plant Centre
- Eden Wildflower Centre



4. Create 22 hectares of habitat improvements across 15 sites, with appropriate interpretation.

Our initial 22ha of habitat improvement included the following areas, after an initial feasibility study: -

- Bosavern Community Farm
- Levant Field
- Godrevy Head
- Steeple Woodland
- St Ives Community Woodland
- St Agnes Garden, Wheal Kitty, Wheal Friendly and Memorial Garden
- St Just Morvah, St Agnes, Madron and Pendeen Churchyards
- Trevoze Head
- Boscastle Museum of Witchcraft
- Lundy Bay

Of these 19 sites, 15 initial site surveys were carried out by Specialist Ecologist, Patrick Saunders.



Top: St Ives Launch Event

Bottom: Steeple Woodland Engagement

5. Deliver a minimum of 56 awareness events and talks across the project focus areas

Delivery of project events and talks commenced immediately, with initial success prior to grant-funding awarded. Awareness events and talks have been well received, with a high take up from a variety of community groups from speakers, as well as specific Solitary Bee events. Covid 19 had a significant affect upon our delivery of key engagement events across the project locality.

By March 2020 we had achieved 78% of our target (44 engagement events), with the remaining 22% either confirmed or awaiting confirmation. With the implementation of social distancing and subsequent lock down, engagement events in the usual format were halted, using alternative avenues we slowly began to regain lost ground assisted by a reworking of the budget to ensure successful delivery of all our outputs.





6. Deliver at least 100 Bee Healthy walks in partnership with Walking for Health, local groups and train 14 walk leaders

January 2019

Walks began in St Agnes, operating on Wednesday mornings and using a variety of routes. This was extended to St Just in July 2020.

October 2018 – March 2019

Successful delivery of 76% of our targets for walks had been achieved within predominantly one focus area of the Project. Throughout the duration of the project we have trained 12 walking for health leaders, including members of the AONB team.

7. Deliver an educational programme with 15 schools to include visits to sites and support for school-based site improvements

Trythal Primary School

- Plant growing
- Support of education pack
- Site adoption, involvement in planting days

Photo: Trythal School Poly Tunnel, Pupils and wildflowers, grown and planted in West Penwith



St Loy Primary School

Photo: Pupils, Staff and Members of the Wheal Buzzy Project planting in St Loy



Croft Mear

- Site enhancement - poly tunnel wildflower plant growing area

Photo: Pupils planting wildflowers at Croft Mear site

St Levan Primary School

- Croft Mear planting day

Photo: St Levan pupils at Croft Mear planting day



- **Boscastle Primary School**
 - Site recommendations
- **St Minver Primary School**
 - Schools visit and lesson
 - Postponed planting day
- **Marazion Primary School**
 - Schools interaction
 - Site recommendations
 - Organiser of school's climate change conference
- **Mousehole Primary School**
 - Site recommendation
- **Port Isaac Primary School**
 - Site Recommendation



Above: Chris Lubbe Keynote speaker at Penwith Education Trust Climate Change Conference

8. **Establish a linked network of volunteers to monitor mining bee populations**
Working with our partners through training and engagement to develop ID skills to monitor own sites and report sightings through the existing ERRICIS platform, which is facilitated through the project ecologist, whilst contributing to own site records.



9. **Organise 8 bee identification sessions**
Bee identification sessions have been led by our contract ecologist at a number of National Trust sites as well as community locations:

Left: Godrevy to St Agnes NT Property
Field Scabious at National Trust Godrevy Summer 2020: Approximately 300 plants providing a food source for the Large Scabious Bee.
Photo credit: P. Saunders



West Cornwall NT Property

Photo: Levant Field Summer
2020 - Habitat of the Coastal Leaf
Cutter Bee
Credit: P. Saunders



North Cornwall NT Property

Photo: Trevose Head from the
Coast Guard station looking out
over the heathland with its rich
mosaic maritime grassland
Summer 2020

Credit: P. Saunders

St Ives Community Orchard

Photo: St Ives Community Orchard
Bee Training Session Summer 2018



Steeple Woodland Local Nature Reserve

Photo: Steeple Woodland open
day September 2019. Project
Ecologist Bee identification session



St Agnes Community

Photo: St Agnes Bee Identification
day July 2019



St Agnes Community

Photo: St Agnes Bee Identification
day July 2019



What worked well

- Increased delivery of habitat improved through the support of the National Trust, particularly through work at:
 - Treen Cliffs
 - Highburrow
 - Cape Cornwall
 - Trenow Boat Cove
- Strong enthusiasm of volunteer group partners that led to increased volunteering events
- The Wildlife Gardening Scheme at Bosavern Community Farm that resonated well with the aims of Wheal Buzzy
- Thirst for knowledge from residents and schoolchildren for solitary bees
- Bosavern's volunteer Ian who worked tirelessly collecting native seeds and sowing/ planting wildflowers – donating to other projects within and externally from the scheme



Above: Volunteer work part Wheal Penrose Highburrow Porthleven March 2020



Above: Volunteers potting on wildflower plugs at Bosavern Community Farm, Spring 2019

Photo credit: Shelley Nuth, Bosavern Farm



Above: Drawing of a long horned bee by a pupil from Trythal School

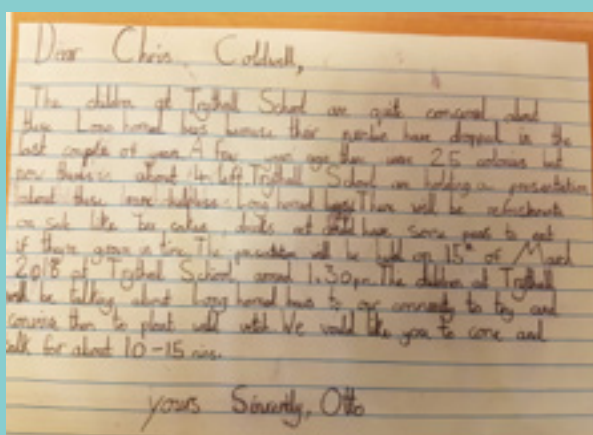


What worked well

"Children from schools in Trythall and Mousehole have teamed up to grow plants the long-horned bee feeds on, such as vetches, everlasting peas and broad beans...

Mat Strevens, Head of Trythall Community Primary School, said: The children were determined to save the bee... "

Pupils aim to save bee from extinction, by Hazel Southam, The Sunday Telegraph 15/04/2018



Above: A thank you letter from Otto, on behalf of all the pupils at Trythall Community School

- Strong relationship with Trythall School from the outset
 - Plants donated
 - Long Horned Bee campaign and conference that led to a Sunday Times article
 - Support with Education Pack
 - Launch at St Loy Cove
 - Support to encourage other schools to get involved
- Knowledge sharing with the 50 project partners
- AONB Unit delivering the project through a partnership approach
- Additional in-kind support
 - Project Officer's attendance on Project Management Course funded by the AONB (Appendix 9)
 - Donated plants
 - Support from Green and Blue for talks and bee bricks
 - The University of Exeter's TEVI Project and the links with their Project Lead, who had previously worked as part of the AONB Unit for 1 day a week
 - Permission to use video in education events from Candu Project



What didn't work

- Slow uptake of Bee Healthy Walks, that required sustained and increased marketing
- **St Just Parish Graveyard:** Strong concerns over introducing wilder areas that would have required more time for engagement and changing hearts and minds than was available within the grant funded timescale of the project
- Delivery of some of the sites originally identified in the programme
- Wheal Kitty and other St Agnes sites
- **St Agnes Church:** The churchyard at St Agnes Church is heavily shadowed by mature trees
- **Madron Church:** Site was too small to do anything of substance
- **Boscastle Museum of Witchcraft:** Site access unsafe for volunteers
- Impacts from National Lockdown as a result of Covid 19 (In brief further explanation on page 16)
- Cancellation of all schools' work
- Pause in engagement activities and the difficulty of rescheduling due to the impending project end date of early July 2020
- Walks stopping and resuming: Change in working patterns, walkers shielding, managing with social distancing guidelines that led to low numbers when these re-started in July



The impact of Covid-19 on the project

The impact of the Covid-19 virus in late March forced a cancellation of the Wheal Buzzy walks, talks and volunteer events with just four months to go before the project was due to end.

This led to a review of the outstanding budget to identify the scope to extend the project through an approved virement of unspent budget headings. With no action, the project would have underperformed on its outstanding outcomes and returned a significant sum back to the National Lottery Heritage Fund (see below).



= £7,151 unspent grant

Using a combination of unspent funding within the project and a £500 contribution from Cornwall Council's Community Fund the project was extended to the end of September in a move that would allow for events to be re-started once lockdown eased in early July 2020. How we developed our engagement opportunities during the period of lockdown With the uncertainty of our current situation, and the likelihood of an increased period of lock down, we worked with existing partners and new contacts to adapt our delivery of key project components; this included:

- Utilising our Wheal Buzzy Education pack as a key resource to firstly promote Solitary Bees and their importance, as now the benefits of outside space are more important than ever. In addition, with many parents home schooling, the need for additional resources and ideas is more relevant than ever
- Delivering online workshops with our partners and through our own social media outlets
- Regular blogs linked to the project hosted though our website
- Micro videos and the development of new material



- A citizen science opportunity linked to people's approved, daily exercise outdoors providing information on typical bee species seen in Cornish gardens. We encouraged people to spot Solitary Bees whilst they are enjoying precious time spent outside (in a responsible way). Linking this with our existing partners as a part of the project
- Continuingly developing ideas to enrich the time people are spending in isolation to challenge and stimulate people over the coming weeks

a. How we spent the grant

Item	Budget (£)	Projected Total	Actual cost (£)
Part time Community Project Officer (0.8) H Grade; 20 months	£43,350	£43,350	£41,583.84
PO Expenses/mileage	-	-	-
Specialist Contractor/Ecologist	£14,000	£14,000	£13,200
Supply of plug plants (estimated)	£5,244	£5,244	£5,244
Site interpretation	£1,000	£1,000	£0
Project printing, publicity and promotion	£2,000	£2,000	£1,674
Promotional video and photography	£0	£0	£75.16
Volunteers/schools travel	£30	£30	£29.29
Volunteer celebration event	£500	£500	£0
Project contingency	£0	£0	£0
Total Expenditure	£66,124	£96,250	£61,806.29
Difference (Over/under spend)	£62,026.71		£34,443.71

Funding breakdown over 2 years

Item	Budget (£)	Projected Total
HLF Our Heritage (62% of project costs)	£56,000	£56,000
Cornwall AONB Partnership cash	£11,000	£11,000
Total project funding	£67,000	£67,000



Site improvements

Quantitative achievements of the project

One of the key achievements of the project has been the extent of achievement in terms of the area of habitat improved, which at the time of writing stands at 53.75 hectares. This is particularly impressive when set against a target of 22 hectares.

Part of this success can be attributed to the alignment of the project with the aspirations of the National Trust in the Wheal Buzzy areas of the AONB. The National Trust's own investment accounted for 82% of this outcome's achievement.

However, the project was instrumental in engaging with the National Trust at a senior level, in both the scoping and delivery of the project, and translating this into collaboration on the ground with the Ranger Teams in North Cornwall, Godrevy to St Agnes, West Cornwall and the Lizard. The workshops undertaken by the Project Ecologist in these areas with the various National Trust Ranger and Volunteer teams all predated this investment. Action, and the initial site surveys, and recommendations, guided the change in management and maintenance.

In this sense it is a reasonable assumption to state that without the Wheal Buzzy Project this impact on habitats would most likely have not been achieved to this degree. The case study with Mike Simmonds of the National Trust explores this link in qualitative terms.

'The project aims have dovetailed very well with all the nature conservation work the NT is already involved in. We have benefitted from the support from Cornwall AONB and the project team in terms of developing some of the key sites for better bee habitat.'

Follow up visits and surveys

In order to ascertain the impact of the habitat improvements on solitary bee populations the Project Ecologist was briefed to undertake a number of follow up surveys at the subsequent sites during summer 2020, once lockdown restrictions were eased at the end of June:

- Treen
- Levant



- Loe and Porthleven
- Godrevy
- Trevoze
- Pentireglaze
- Trenow

In all cases, additional threatened populations of solitary bees were recorded by the Project Ecologist including; the S. 41 Brown Banded Carder Bumblebee and the Long Horned Bee, the nationally scarce Black Mining Bee, the Buff Tailed Mining Bee, the Pantaloon Bee, the Green-eyed Flower Bee, the Hawksbeard Mining Bee, the Gold-fringed Mason Bee and Silvery Leaf Cutter Bee.

This success, after just one year in most of these cases, demonstrates that the physical improvements have enhanced the foraging opportunities for vulnerable species of Cornish Solitary Bees, one of the two key objectives of the Wheal Buzzy Project. It is even more encouraging that this was achieved after a dry spring when many of the plug plants were noted to have failed.

The Project Ecologist also completed additional recommendations for each of these National Trust properties in order to sustain the legacy of the Wheal Buzzy Project beyond the life of the project. Whilst it may be harder for the National Trust to implement some of these recommendations in the short term, due to their reorganisation following the impact of Covid-19, it is hoped that further improvements might be seen beyond the immediate 12-18 months.

The full set of follow up site reports is included in the evaluation appendices.



Above: The Treen Cliff site above the iconic Porthcurno Beach in late April 2019



Above: The Cape Cornwall Meadow



Community-owned site impacts

Whilst contributing significantly less in terms of the area of habitat improved, Wheal Buzzy's work with community-owned sites has yielded a real step change in awareness and action for solitary bees.

Direct physical improvements in this area of activity have included the following:

- Bosavern Community Farm Wildflower Meadow Trail
- Planting at St Ives Community Orchard
- Habitat management at Highburrow, Porthleven with Porthleven Environment Group
- St Loy Meadow with Trythall School

In addition, the project has donated seeds and undertaken surveys and recommendations of the above two sites, plus; Wheal Kitty for the St Agnes Local Improvements Committee, Steeple Woodland Local Nature Reserve and with work underway, at the time of writing, for St Just in Bloom.

Whilst we have not carried out ecologist-led bee surveys on these sites, the feedback from the groups concerned is that bees and pollinators in general have increased on these sites. It is apparent that this is because of the work of the project as the pictures opposite illustrate:



Above: Bosavern Community Farm Wildflower Meadow Trail - June 2018



Above: Bosavern Community Farm Wildflower Meadow Trail – A year later in June 2019



The project has raised awareness on these sites with the host groups, and at wider community events, that have contributed towards a new understanding of solitary bees. This has included; walks, attendance at the St Ives Community Event in 2019, and bee ID events. As a result of this the St Ives Community Orchard has successfully secured National Lottery Community Funding Awards for all grant assistance to run their own walks and talks programme at the County Wildlife Site. This will help to sustain, and extend, their newfound interest and engagement with solitary bees.

The St Ives Orchard have extended their beehives on site during the timescale of Wheal Buzzy and have put together information to disseminate their knowledge about beekeeping on their website and to support local bee populations.

Whilst Steeple Woodland has followed suit with a beehive of their own within the site.

The project has sourced all of its plug plants from local suppliers including; Bosavern Community Farm, which has supported the growth of their propagation efforts, as well as sharing contacts between the other suppliers, Eden Wildflower Centre and Kehelland Nursery, with the local community groups. Links have also been made between local wildflower seed donors and local groups, the above propagators and the National Trust, which will support ongoing wildflower propagation and habitat improvement across these parts of the AONB when the project has completed.

The project has also prompted Steeple Woodland Local Nature Reserve to grow some plants



Above: St Ives Community Orchard – June 2020



Above: Wheal Buzzy Project Ecologist at a Bee ID session at St Ives Community Orchard





"All our bees are doing well, and I have scattered about 100,000 wildflower seeds and have several seed trays full of wildflower seedlings on the go. We have already cleared one of the areas pointed out by Paddy that would be good as possible home for the Mining Bees and will soon be seeding the areas"

Group Chairman



Wheal Buzzy Analysis

A key part of the Wheal Buzzy Project has been increasing awareness of Solitary Bees and their role in conservation in the wider public eye. Perceptions have historically been drawn to both honey and bumble bees as they are so visible within our ecosystem, often due to the vastness of the demographic of Solitary Bees, and misconception of their lifecycles.

From conception of the project in early 2017 through to award of funding from the National Lottery Heritage Fund, beyond those actively involved in Solitary Bee Conservation (Ecologists and Naturalists) an observed 85% of the audience had little to no awareness of Solitary Bees and their importance. Which has been echoed through feedback received as a part of our talks held for Women's Institutes and University of the third age.

'The Murley Hall was Buzzing on Monday evening as members were joined by Charlotte Goodship from the Wheal Buzzy Project. Charlotte is Project Officer for the scheme, run by the Cornwall AONB, which aims to promote awareness and create space for solitary bees in Cornwall, particularly Cornish Mining Bees.

Members were astounded to hear that Cornwall is host to more than 190 species of bee, some of which feed on a single plant variety ...'

Crowlas and Ludgvan Women's Institute, September 2019

As well as from our community partners:

"I know I speak for the rest of the team when I say we are incredibly proud to have been associated with the Wheal Buzzy Project. I myself have learnt a lot about solitary & mining bees and have a much greater awareness of simple actions that can make a big difference to these species. You are a brilliant representative of Cornwall AONB, full of energy and enthusiasm in the project which is very inspiring"

Shelley Nuth, Bosavern Community Farm

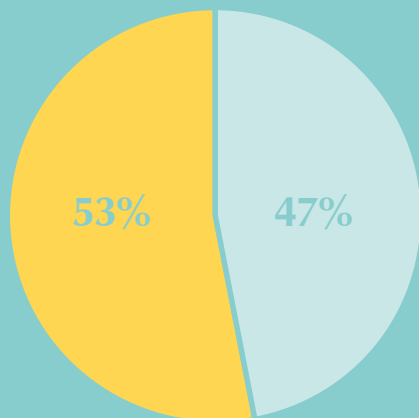
Our active engagement programme, as a part of the project, has directly and indirectly worked with 1,819 individuals through a series of talks, walks and volunteer days since January 2019, actively increasing awareness of Solitary Bees within Cornwall and their wider place in our heritage.

Awareness of Mining (Solitary Bees) has increased in Cornwall since 2018 and a change in perceptions, leading to slight changes in behaviour, and the creation of space within our own habitats, has been actively observed.

Since October 2018, as a part of our engagement and volunteer days, we have monitored groups and individual's awareness of Solitary (Mining) Bees when looking at it on a simple yes, no basis of awareness there has been little difference. However, when breaking it down into how familiar individuals are with the species, a different perspective appears, and awareness of the species has notably differed since the beginning of the project. This ranges from those who felt that they had no knowledge at all, or awareness of, the Cornish Mining Bee Population in 2018, to a varying degree of knowledge in 2020. 8% of those initially surveyed felt that they are not familiar with the species, increasing subsequently to 32% saying that they are extremely familiar with Solitary Bees. This significant increase should be attributed to our Wheal Buzzy engagement programme, and the enthusiasm of all volunteers.



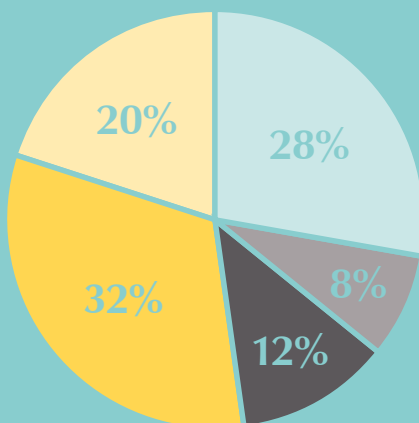
Were you aware of Solitary Bees prior to the Wheal Buzzy project?



● Yes ● No

Familiarity of Solitary Bees before engaging with project

How aware of the Wheal Buzzy project and Mining (Solitary) Bees are you?



● Extremely familiar ● Very familiar
● Quite familiar ● Not so familiar
● Not at all familiar

Familiarity of Solitary Bees after engagement with the project



As you can see from the graphs opposite, awareness and depth of awareness of Solitary Bees has increased by approximately 50% throughout the duration of the project. As awareness of Solitary Bees has increased, so has understanding of them as a species and the role which they play in our wider ecosystem.

Of those asked, “What do Solitary Bees mean to you?” we had a staggering 96% response rate, with a variety of comments, from:

"I knew nothing about them and did not realise there were different types of bee"

Through to:

"Important in heritage terms due to the link of mining bees to West Cornwall. Important to nature as they are a good indicator of biodiversity. Important as pollinators."





Understanding of threats faced by solitary bees

A key message from the start of Wheal Buzzy has been to develop an understanding of the threat which our Cornish Mining bee population is under, as well as the steps which can be taken.

When asked:

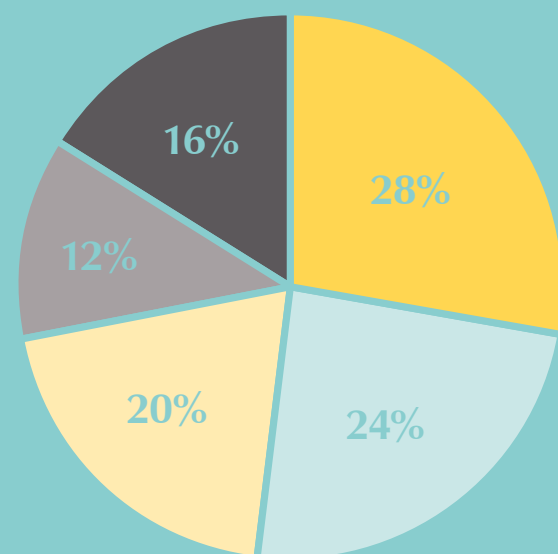
Solitary Bees continue to be under threat from a number of factors, including loss of habitat and climate change to name two. How aware are you of actions you can take to help them?

We had a 100% response rate from all involved, the following trend was observed during summer 2020.



Solitary Bees continue to be under threat from a number of factors, including loss of habitat and climate change to name two.

How aware are you of actions you can take to help them?



There is obviously a trend towards a lack of understanding of a) the species b) positive actions which can be taken and c) how accessible they are.

However, the uptake and enthusiasm from groups and individuals shows genuine enthusiasm for taking positive and proactive steps to create space and awareness for our mining and other solitary bees on an individual and community basis.

Responses to the open question "What have you personally or as part of group done for Solitary Bees?" include:

"Build a bee bank on my allotment"

"Pendeen church is managing its churchyard with a cutting regime that keeps areas for wildflowers for the bees to feed on"

"Helped planted wildflower plugs as part of Wheal Buzzy and wider project at Bosavern Community farm. Made space in the garden for bees and other insects using bee bricks, bamboo etc and sown wildflower seeds at home"

"Yes - ring fenced an area of sandy bank for bees to dig into"

Positive action for solitary bees has noticeably increased as a direct result of the Wheal Buzzy Project, data has shown an increase in interactions across all channels, talks, walks, volunteer days, and various media platforms.



Protecting bees and their habitats in Cornwall

IN CORNWALL, there are approximately 199 different species of bee recorded which is roughly 86% of the different species of bee known in the UK. Knowledge is increasing regularly and is a fascinating area of entomology.

The Wheal Buzzy Project is a unique and innovative project, placing people at the heart of mining bee conservation across the landscapes of Cornwall's Area of Outstanding Natural Beauty (AONB). The project is made possible by funding provided by the National Lottery Heritage Fund with additional funds from the Cornwall AONB.

Solitary bees make up the wider demographic of then bee species, more so than honey bees by far and also bumble bees.



A RED Mason Bee.

The fact that there is such a diverse number of individual bee species in Cornwall is testament to the rich flora and fauna. However, habitat is fragmented and some species are only to be found in isolated pockets, this is particularly the case in solitary bee species.

So what are solitary bees? The name solitary is actually somewhat

misleading, they are actually a group of bees who are highly independent with a fascinating lifecycle. Some do live in large groups or colonies, however most build an individual nest and take sole responsibility for provisioning it. Popular nesting sites are often a hollow tube or a hole in a bank. You can see them anywhere, for instance: gardens and allotments, roadside verges, riverbanks, cliff faces and allotments as well as open woodland.

You can see various species of solitary bee flying from mid-April towards the end of September. An easily recognisable and important species is the Long Horned Bee, particularly the male. The Long Horned Bee is only found in a few isolated places in West Penwith so you are more likely to see it whilst out for a walk. Another species which you may well find in your garden is a Red Mason Bee.

OTHER POLLINATORS

Charlotte Goodship of Wheal Buzzy commented: "There are a few simple ways to encourage solitary bees and other pollinators into domestic gardens. Why not try leaving areas of your garden to grow wild or provide a space for bees to nest in."

"Most importantly enjoy what your garden has to offer and you will see these amazing insects carrying out their daily tasks and foraging for food to provide for their young whilst being highly efficient pollinators. In fact individually a lone Red Mason Bee is a far more efficient pollinator than a honey bee."

"The Wheal Buzzy Project is asking people to let them know what bees they find in their gardens or even out on their daily walk so why not share a photo on social media and tag it #WhealBuzzy. If you want a hand with identification there are



A LONG Horned Bee.

some useful links from the Wheal Buzzy pages on the AONB website."

Cornwall is of national significance for its bee fauna and the old mining sites are important for a number of reasons. They have post-industrial habitats which make ideal locations for solitary bees and other insects, in particular bare ground and early succession grassland or heathland on the disturbed spoil of the workings. Other features include south facing structures such as banks and walls for nest sites. Many mine sites have been excluded from intensive agricultural practices and have retained semi-natural flower-rich habitats now rare in intensive farmland. There is also great habitat connectivity, in particular coastal mine sites, which are close to long strips of connected coastal flower-rich habitats of high significance for their pollinator fauna.

However all bees are in starting

decline across Cornwall. The Wheal Buzzy Project will work against these threats by bringing together land owners and communities to create flower-rich habitats for solitary bees across the AONB including West Penwith, part of the Lizard, Godrevy Head to St Agnes and North Cornwall.

By working in these ways the project hopes to connect people with nature, improve people's health and wellbeing, be able to undertake focused conservation work that connects across wider landscapes, counter the effects of damaging human activities and recognise the vital role lesser known pollinators play in sustaining and improving life on earth.

If you would like to know more about solitary bees and the Wheal Buzzy Project head to the website www.cornwall-aonb.gov.uk or search Wheal Buzzy Project.



PROVIDING habitats such as drilled logs is a way of attracting bees to your garden.



ABANDONED industrial sites make ideal habitats for mining bees. This old mining area hosts a colony in the bank in the centre of the photograph.



Throughout the project we have collated feedback from a variety of sources and also spoken with some of our more active partners to develop a series of case studies based upon their involvement with the project.

A selection is illustrated below including a number of case studies from partners in the project ranging from volunteers, community leaders, land managers, key scientist and headteachers.

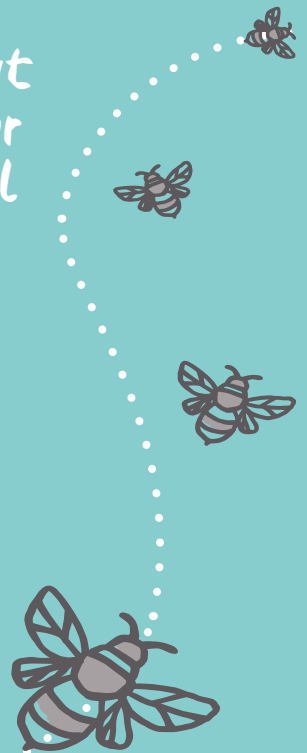
Positive Action Following an Engagement Event

St Ives Talk
October 2018



"We have noticed over the last few years that we had two or three types of bees looking for holes in our granite wall, so I decided to drill a few holes to help them along a bit. I haven't had time to identify them yet - perhaps you can from the attached picture? The other type is a dark chocolate brown bee about the same size as a honeybee but a bit shorter and fatter and with orangey brown hairs on its thorax"

John Moss St Ives (Appendix 12)

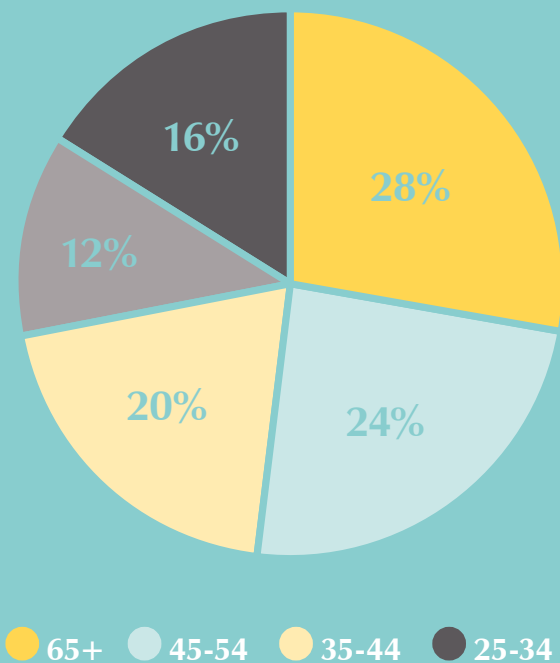


Schools and the Solitary Bee Education Pack

wide with every school linked to public health Cornwall, and even out of county in some respects, with an overwhelmingly positive response. These are illustrated with key words below (Appendix 14)



Wheal Buzzy Education pack downloads, by age



Interaction and enthusiasm for the project from schools has been huge, especially the learning of pupils and the love and enthusiasm displayed for the species. (Appendix 17)

"I am frequently called out of the office now to look at LHBs that the children have found at playtime which have invariably flown away before I get there! It's all great fun though and the children are still very enthusiastic..."

Mat Strevens, Headteacher
Trythal Primary School

Student feedback:

Will, aged 10

"Today was fun and exciting. I would like to do something like this again. I would like to tell other people that we need to save mining bees because they are important."

Elsie

"Planting the plugs was fun. I would like to do something like this again. I would like to tell other people that mining bees need our help and they're endangered."

Overall our Public Relations highlights including the Education Pack, and other articles have had a total reach of 247,596 individuals with an advertising value equivalent to £15,333 (at no additional cost) to the overall project value.



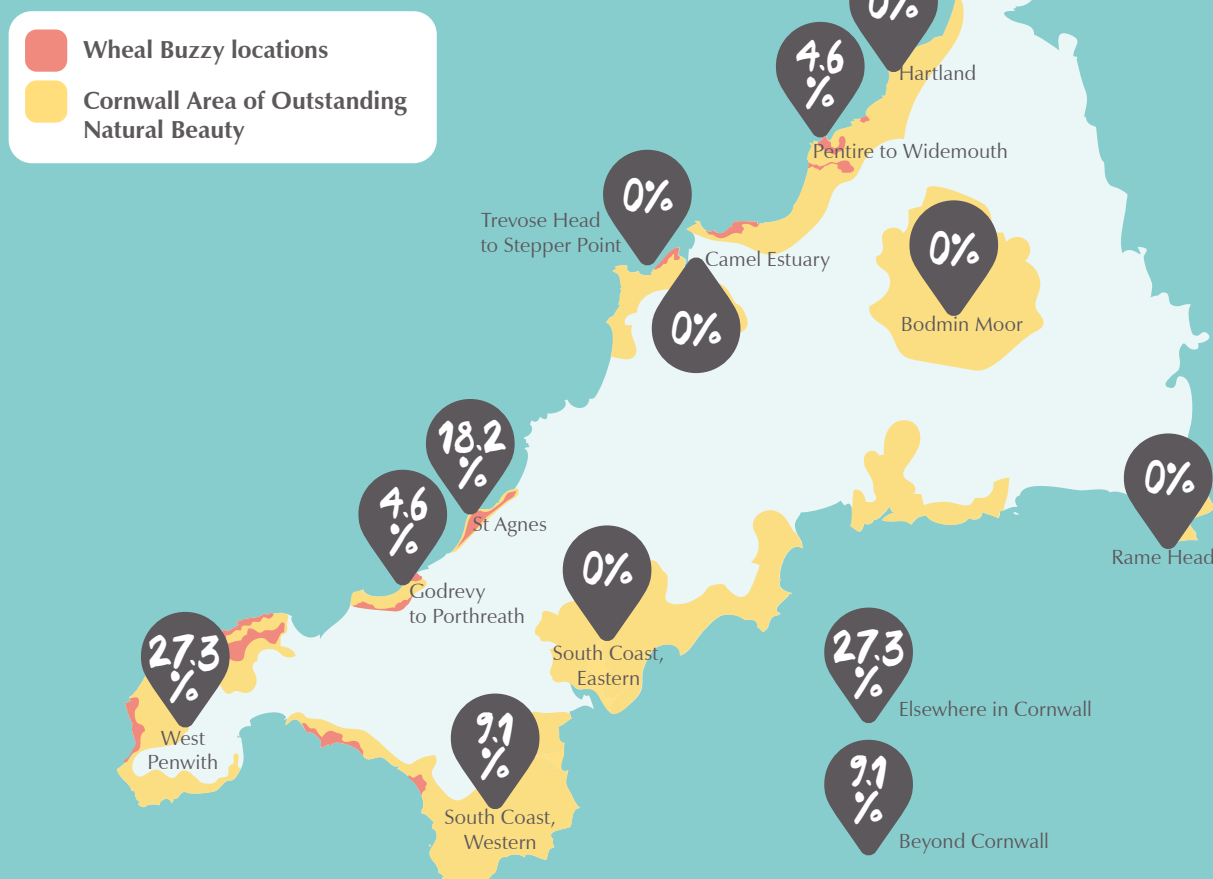
Reach of the Project

Of the twelve unique areas of the project our primary areas of work have been in:

- North Cornwall
- West Penwith
- St Agnes/Godrevy Head area
- South Coast Western

However, interaction has extended beyond these areas, including areas within Cornwall outside of the AONB, drawing a greater demographic of individuals to explore and become actively involved in our designated landscape, and indeed in some respects beyond the county boundary.

WHEAL BUZZY REACH

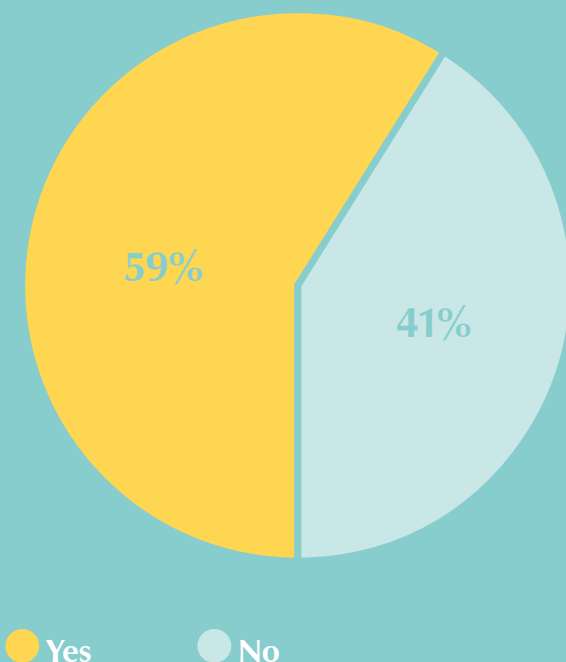


The reach and enthusiasm for these enigmatic creatures has been wide. This uptake and interest in the plight of solitary bees clearly demonstrates that there is more which could be done given a longer period of time.

This is only reinforced by the fact that 59% of those asked have started noticing solitary bees more as a result of the Wheal Buzzy Project.



Have you noticed more Solitary Bees in the past year?

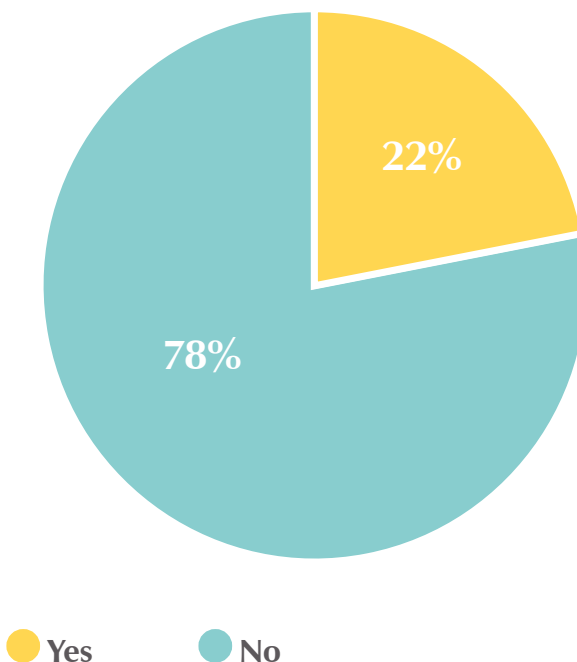


"Leaving parts of the lawn to let dandelions, daisies and vetch flourish, has brought many pollinators to the garden."

"I have certainly noticed a lot more bees in my garden close to Camborne this spring but not sure if they are Solitary Bees or not."

Questionnaire responses

Have you interacted with any of the project's online resources, e.g. our education pack?



Prior to Covid 19, our engagement in relation to the Weal Buzzy Project had primarily been along traditional routes; walks, talks and traditional media. With the advent of lockdown in March 2020 we had to look at an alternative way of delivery, however many of our key partners fall into the category of preferring to spend a larger proportion of their time offline, and the below figures are in contradiction to responses from an active social media campaign to promote the education pack.

This anomaly indicates that the subject of solitary bees is clearly transferable to an online platform and can be utilised as tool to harness the growing interest and enthusiasm which has arisen as a direct result through projects such as Wheal Buzzy.



Case Studies

The groups and individuals we have worked with have been at the very heart of the Wheal Buzzy Project. Bringing to the table a huge amount of enthusiasm and drive for the project and indeed the plight of the Cornish population of mining bees. As a part of the project capturing their thoughts and reflections on the project have been invaluable, not only has Wheal Buzzy benefited from working in partnership with them we have bought value to their sites and community. Five of our key partners ranging from volunteers, the project ecologist, community and local government leaders and the National Trust have let us know in their own words the value Wheal Buzzy has bought not only to the ongoing conservation and heritage of Solitary Bees but also to their local patch.



Community Volunteer Case Study: Ian Willsdon

Ian is a key volunteer at Bosavern Community Farm, one of our Wheal Buzzy Sites.



He has been involved at Bosavern farm for roughly five years and actively with the Wheal Buzzy project since early in 2018. Firstly, on a relatively small scale as that of an interested party who put forward the farm as an area which could perhaps be a suitable site. The

original area indicated as a part of the project was somewhat modest compared to the work which has taken place as a result of Ian's enthusiasm and drive for taking on the vales and plan for the Wheal Buzzy Project, enthusing others too.

1 What is your role?

That of an activator, or even a catalyst, first of all. My work at Bosavern is a crucial channel for volunteers, not only at the farm, but also as a facilitator to channel, focus and direct the actions, in terms of ecological impact, for creating wildflower areas and providing help for pollinators. Within this I have also been working as a school's advisor at some of the local schools in the area including Cape Cornwall, Trythal Primary School, and links with both Pendeen and St Just Primary Schools. I've always been interested in wildlife from a young age and wanted to make a difference to people lives ensuring that a legacy exists 'so why not do it'.



2 How did you first hear of Wheal Buzzy?

I was initially approached by the AONB Project Development officer at the early stages of the project with an outline of what they hoped to achieve. It immediately appealed as I could see how it fitted with my aims. I've been an environmental activist since 1972, and always had an involvement in some sort of growing scheme. From a gorilla allotment at university, to restoring an old walled garden in the Lake District. One of my first roles was in Macclesfield as part of a community growing scheme. In this role I was training school leavers as part of a gardens project, and working with vulnerable children at a school's allotment. Wheal Buzzy excited me. It was an easy decision to become involved as the project is very focused upon something which I am passionate about; nature.

3 How has Wheal Buzzy benefited you/your organisation?

Wheal Buzzy has enabled a sharper focus, a rallying cry, around the work we can do. It has enabled me to take it into groups I have been working with, such as sustainable Pendeen, work with the schools in the local area, and the establishment of a wildlife gardening group at Bosavern Farm. The project has instigated a movement amongst local communities, shining a light on tangible actions and outcomes.



Above: Bosavern Grassland before Wheal Buzzy Recommendations



Above: Plug planting and growing on at Bosavern Farm



4 What have you been doing as a result of the project?

In terms of Bosavern Community farm in 2015 we received a grant from The Royal Botanic Gardens, Kew to create the 'Bee Garden' which I planned and managed the execution of. Wheal Buzzy has enabled us to extend the reach of our pollinator work at the farm and rolled on nicely from the bee garden project. Following on from Paddy's initial recommendations, we have been growing wildflowers to not only plant on the farm, but within the wider community too.

5 Looking at the wider community, how has the Wheal Buzzy project had an impact?

Wheal Buzzy has enabled us to link in with not only local projects, such as the Long-horned Bee Project run by Kernow Ecology, but also national campaigns such as Bug Life's Bee Lines. There is additional work in the future with St Just in Bloom, St Just Town Council, and other local groups. Having always wanted to work in the community, and succeeding in doing so, Wheal Buzzy has enabled me to make a difference. It is something which I thrive upon, as well as seeing the success it builds.

"Ian's knowledge, drive and enthusiasm has been phenomenal, as illustrated by the pictures below which show case a small fraction of the work, he has undertaken at Bosavern Community Farm as a result of the Wheal Buzzy Project."

Project Officer response



Wheal Buzzy Project Ecologist Case Study: Patrick Saunders

Patrick (Paddy) is the Project Ecologist for the Wheal Buzzy Project, alongside his many other roles.



Between April – September you will most likely find him out and about researching bees and sharing his knowledge with a variety of people.

All of the surveys and habitat management recommendations for the project have been devised by Paddy.

1 What is your role?

I am the county recorder for The Environmental Records centre for Cornwall (ERRCIS) and Environmental records in Cornwall, Automated (ERICA). I also run an independent ecological consultancy (Kernow Ecology). Beyond these roles I also run independent projects to conserve pollinators such as save the Long-Horned Bee.



Above: Wildflower planting around Bosavern Farm



2 What have you been doing for the Wheal Buzzy Project?

I am the Project Ecologist for the Wheal Buzzy Project and have been surveying the key sites and giving ecological advice for the project as set out as part of the grant deliverables. Within those surveys, I have been looking at ways site owners can improve their habitat for mining bees. I have been specifically looking for some key species on project sites, such as the Large Scabious Bee, the Buff Banded mining bee, and the Long-Horned bee. I have evaluated sites by field surveys and using other records. For example, on one of the project sites over 125 species of Bee, Ant and Wasp, including three Biodiversity Action Plan, four Red Data Book, eleven Nationally Scarce and seven Cornish Red Data Book species have been found to occur. The project has offered practical advice to conserve these, in some cases, nationally important sites.



Above: Bosavern Grassland before Wheal Buzzy Recommendations

3 To you, why is Wheal Buzzy, and the wider conservation of Solitary Bees, of such importance?

Pollinators are vitally important keystone species both for natural eco-systems and to sustain viable food production. It is in our self-interest to maintain healthy and diverse, (including both common and scarce solitary bees) pollinator fauna. Biodiversity should, and does, matter! The Wheal Buzzy sites include the highest quality sites with the most threatened species, it has to be on one these sites that the conservation work starts.



4 In five years' time where would you like to see the status of Solitary Bee conservation and the wider awareness of the genus as a whole?

In five years I would like to see land management more focussed on conserving both key solitary bee species and late flowering unimproved grassland.

Data taken from Cornwall DEFRA (Department of Environment, Farming and Rural Affairs) in 2012 indicates that £11.7m went to landowners to deliver environmental options. In my personal opinion species such as farmland birds and scarce butterflies do have good schemes, however at present there is little or no monitoring and assessment of environmental schemes specifically for other pollinators in Cornwall. This concerns me, because there are many sites funded to, at worst destroy, and at best badly manage pollinator habitat. To achieve positive outcomes for pollinators and allow for a strong delivery model, land management must include a robust monitoring system. Present and future Agri-Environment schemes must be continual with modified delivery based upon results.

In terms of public awareness, in my opinion everyone has an "awareness" the world currently faces an environmental melt-down. We have a pressing need for funded practical solutions, including good monitoring, strong research and policy lobbying, including broader society channelling awareness into specific objectives with the relevant training beyond a general awareness of the pollinator issue.

5 Do you feel Wheal Buzzy has made a difference, based on visits, advice and follow up, and why is this?

I feel Wheal Buzzy has made a difference. The project has enabled focussed advice and surveys on some of the best sites in Cornwall for threatened bee species. This has resulted in 53.7ha, of habitat. Successes in 2020 include, the threatened Long Horn Bee and Brown Banded Carder foraging in the meadows, created as a result of our advice. We have created five fields of flowers sowed (or seeded or planted) in formerly intensive crop in Perranthuoe. As well as Nationally Scarce bee foraging on plug plants supplied by the project and a new site identified for a Red Data Book bee.



6 What next?

Personally, I will hope to continue working with these species, and with the group of landowners who have been involved in the Wheal Buzzy Project. I would like to continue fund-raising and developing subsequent projects based upon the successes of Wheal Buzzy.

By 2025 I would like to see a safeguarded Large Scabious Bee population around Gwithian, Cornwall. This could be easily achieved with legacy work with the landowners engaged. I would like to see fields in the areas of Kendijack, Levant and Perranthuoe enhanced with the project's support, interminably safeguard three Long Horn Bee colonies.

"It is fantastic to see the positive results coming back from the repeat surveys carried out in the summer of 2020, and the increase in species numbers and even in some circumstances species being found on certain sites which have not been recorded there previously or in some time. The passion and drive from Paddy for Solitary Bees is huge, and only backed up by his viewpoints on the Conservation efforts for Solitary Bees and other pollinators. It's fantastic to know that the work undertaken as a part of the Wheal Buzzy project will be continuing. Paddy's ability to take a somewhat innocuous insect and pass his passion onto others is great to watch and truly illustrates the way which strong engagement and robust science can work together, to benefit mining bees and other pollinators, conserving the species, habitat and associated heritage."

Project Officer response

Cornwall Councillor Case Study: Sue James

Sue is based in West Penwith and heavily involved in any number of community initiatives in the area.



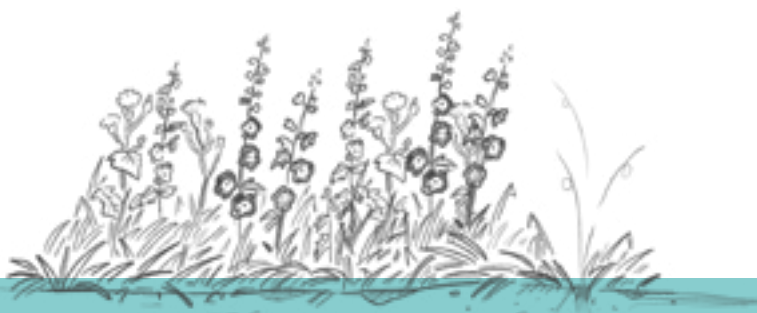
From her role as Deputy Mayor for St Just Town Council, board member for the Lands end Peninsular Community Land Trust, through to her role as a County Councillor and a passion for the environment including being portfolio holder for the Environment with Cornwall Council until 2019, during which she helped to launch the Cornwall Pollinator action plan.

1 What is your role?

I am a local Cornwall Councillor for the St Just-in-Penwith area. I also Chair a local Community Land Trust with a very small patch of open land.

2 How did you first hear of the Wheal Buzzy Project?

I had heard of Wheal Buzzy before the project began as, up until May 2019, I was the Cabinet Member holding the Environment portfolio.



3 What involvement have you had in the project?

I was involved in discussions about where bee friendly planting could happen in the St Just Parish, and assistance to get funding to extend the programme once the pandemic had reduced work levels on the ground. I promote social media posts and did take part in a recent walk from Cape Cornwall.

Sadly, one project that was wonderful in getting local school children out planting on Community Land Trust land, did not work out as we envisaged as the ground was too overrun by docks. I still believe in the project and would still love to try to find a way of embracing more bee friendly planting as the residents there had already done a wonderful job around the borders and we had wanted to convert some of the green desert land to something more diverse.

I am still optimistic this can work!

Response from Paddy Saunders, Wheal Buzzy Ecologist:

The project planting was successful at Croft Mear. There was good establishment of meadow vetchling, greater Birdsfoot trefoil, cat's ear and Black Knapweed. Although survival rates were not exceptional, enough were in the sward, that given a suitable management regime the site would become a valuable meadow for solitary bees. A high level of ruderal plants (such as dock are normal for most planting schemes).

At the time of planting a planting plan was provided. The planting plan very specifically mentioned a five-year management plan was needed and also mentioned specifically summer 2020 weeding was needed.

A simple cutting regime over time would address the ruderals. Combined with some work managing perceptions of meadows, which I am happy to provide

4 How has Wheal Buzzy benefitted you/your Community?

The Wheal Buzzy Project has worked, and continues to work, with various community groups in the area. Bosavern Community Farm, and now some other environmental groups, are emerging and, with Wheal Buzzy support, I'm optimistic new bee friendly projects will flourish. I am hopeful that the town will continue to look wonderful but might become more sustainably planted and even better for pollinators!



5 How would you like to see your immediate area and perhaps the Duchy as a whole move forward in its pollinator work in the next five years?

We need to embrace this along our highways and in urban and rural areas as these can produce wonderful diverse corridors. We need to inspire residents to regard gardens and grounds that are a bit wild as good, and not be chasing 'neat and tidy' green spaces.

Whilst St Just-in-Bloom has produced brilliant colourful displays, I'd like to see the community embrace something more sustainable that is good for human and insect life to share. I want to see the community celebrate something more beyond Gold awards and accolades, and hope children will grow up understanding we share this planet with many other creatures. I hope the next generation will just naturally leave plenty of space for nature.

"Having worked closely with the local community to plant the area at Groft Mear it was a shame to feel that it was felt that we hadn't been successful in establishing a wildflower area there to benefit pollinators. However it is not a failure plants did grow and I'm sure that next year it will look very different particularly with the extra support Wheal Buzzy and the AONB are able to offer as a result of our ongoing work in St Just to create pollinator friendly areas within St Just its self and associated communities, forming a part of the project Legacy and really bringing the positive results we've had in surrounding areas right into the town including the Wheal Buzzy education Pack."

Project Officer response

Land Manager Case Study: Mike Symmonds, National Trust

Mike is the area Ranger for the National Trust, covering two of our key sites...



...within the Wheal Buzzy project From Trevoze head to Lundy Bay. Working with a small team of rangers and volunteers to manage a variety of habitats as a part of the National Trusts North Cornwall portfolio.



Above: National Trust Rangers, volunteers and the Wheal Buzzy team planting wildflower plugs at Pentire Glaze, December 2019

① How and where did you first become aware of the Wheal Buzzy Project?

Cornwall AONB introduced us to the project having previously had some involvement with the Farms for AONBees workstream before that. We already had dealings with Kernow Ecology regarding bees and their habitats on NT land and ex mining sites. We had a number of meetings with Cornwall AONB and the project staff.

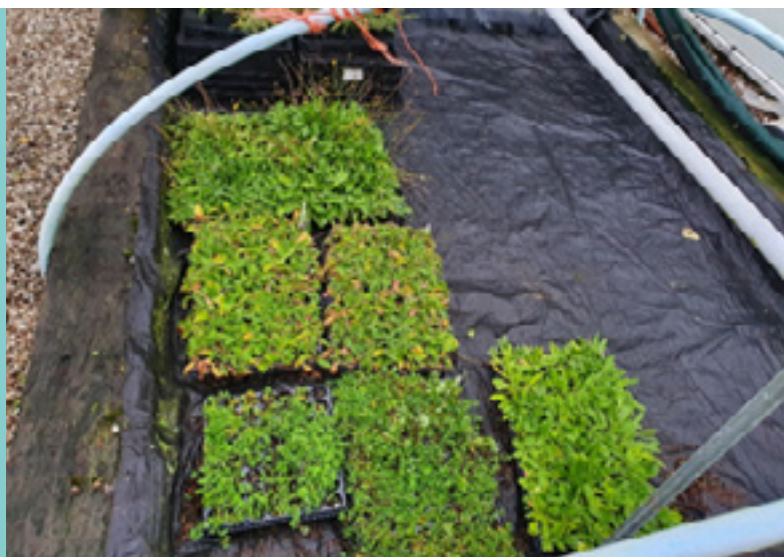


2 In relation to the work of the National Trust and the work of your team, how has the Wheal Buzzy been of benefit and what impact has it had?

The project aims have dovetailed very well with all the nature conservation work the NT is already involved in. We have benefitted from the support from Cornwall AONB and the project team in terms of developing some of the key sites for better bee habitat. Although the planned education activities with local schools sadly didn't take place, we were able to involve our volunteers in the learning opportunities and practical work which has included wildflower plug planting. We have also benefitted from some written surveys done by Kernow Ecology, for our Trevoze and Pentire sites.

Wildflower
plugs ready for
planting at
Pentire Glaze

December 2019



3 In relation to the work carried out to be of benefit to pollinators what would you like to see happen next?

Perhaps come back to us re: education activities and guided walks in the future?



'The support we've had from the National Trust throughout the Wheal Buzzy Project area has been invaluable. Particularly in terms of the amount of land we have been able to improve for our Mining (Solitary Bees) through their additional support and drive. Unfortunately the school's engagement activity wasn't able to take place (planting of wildflower plugs at Pentire Glaze) due to adverse weather. We had arranged to run an additional activity during the spring for St Minver Primary but unfortunately this was affected by the national lockdown as a result of the Covid-19 Pandemic.

Looking forward the opportunities for positive habitat management for Solitary Bees and other pollinators at all of are strong and a commitment has been made by the Project to plant additional Field scabious plants on behalf of the project at Trerose head post completion of Wheal Buzzy, as well as ongoing support to their pollinator action and nature recovery work streams. We would love to develop additional education opportunities at this and other sites, especially through future projects."

Project Officer response



Schools Case Study: Mat Strerens, Head Teacher Trythal Primary School

Mat is the headteacher of Trythal Primary School, part of the Penwith cluster of schools.



From her role as Deputy Mayor for St Just Town Council, board member for the Lands end Peninsular Community Land Trust, through to her role as a County Councillor and a passion for the environment including being portfolio holder for the Environment with Cornwall Council until 2019, during which she helped to launch the Cornwall Pollinator action plan.

1 What is your role?

Headteacher and class teacher.



2 How did you first hear of the Wheal Buzzy Project?

Can't remember exactly but I know that Chris came to a Penwith head's meeting to talk about the project, which was brilliant.



3 What have you and the school been doing for the Wheal Buzzy Project?

Lots of work focussed on rare species e.g. Long Horned Bee (LHB). We identified nests near to St Loy and Levant.

4 How do you feel that the project has been of benefit to your school and the wider community?

Being part of the project has brought everyone together. The parents have been aware of conservation issues in Penwith and are keen to help. This project involved the parents working alongside the children to save a single species of bee. It was a massive success.



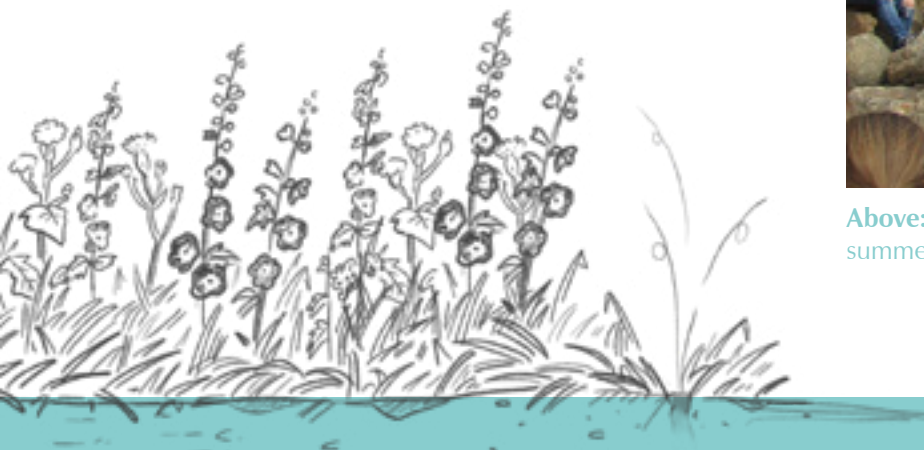
Above: St Loy Launch Event and Wildflower plug Plntign With Trythal Primary School, invited guests and AONB Staff October 2018



Above: Long Horned Mining Bee Found on meadow planted by Trythal Primary, summer 2019



Above: Trythal School Site follow up visit St Loy, summer 2019



5 Looking ahead what would you like to see happen in terms of schools/community and solitary bees in the next five years?

We need to embrace this along our highways and in urban and rural areas as these can produce wonderful diverse corridors. We need to inspire residents to regard gardens and grounds that are a bit wild as good, and not be chasing 'neat and tidy' green spaces.

Whilst St Just-in-Bloom has produced brilliant colourful displays, I'd like to see the community embrace something more sustainable that is good for human and insect life to share. I want to see the community celebrate something more beyond Gold awards and accolades, and hope children will grow up understanding we share this planet with many other creatures. I hope the next generation will just naturally leave plenty of space for nature.

'Trythal Primary are such a forward-thinking Primary School and the results they have achieved from a small input from the Wheal Buzzy Team are huge. Looking forward the legacy which the project leaves behind from just one of the many schools we have engaged with during the lifespan of Wheal Buzzy is amazing. I am confident that as one spokesperson for the plight of Solitary Bees Trythal will grasp the moment and carry on as true advocates for not only the Wheal Buzzy Project but pollinators and the environment as a whole. Increasing learning and appreciation of pollinators their environment and wider heritage.'

Project Officer response



Conclusion

As a whole Wheal Buzzy can be regarded as a resounding success.

With

53.75
hectares



of land improved
for Solitary Bees
- through direct
planting, and habitat
improvements



917

individuals engaged

- with as part of our inclusive engagement
- program of talks, visits and events by the
- Project Team and professional partners

Spent
time
with

17
schools



- delivering interactive
- educational programs and visits.

Overall, since 2018 we
have delivered a project valuing

Multiple volunteer
hours and the ongoing
drive and enthusiasm
from all stakeholders
for the work to
continue



nearly
£90,000



including in kind support,
such as seeds and plugs,
from a number of our partners



● **Covid 19 had an obvious impact** and a number of our planned events and engagement opportunities had to initially be postponed and the situation progressed inevitably cancelled. However Wheal Buzzy adapted to the situation developing short online resources, encouraging our social media followers to use their time outside to take note of the pollinators outside and have ago at some simple identification.

● **During this period we also launched our Education Pack, a part of our legacy and more importantly, available as a free resource to all.** The positive response and uptake to this resource has grown steadily and will prove a lasting legacy and resource for any future pollinator projects within the AONB.

● **Looking to the future there is an obvious thirst for knowledge and a desire to take positive action for the Cornish population of mining bees,** through not only through habitat creation but active participation. All of our partners, community groups, schools, and landowners have stated an ongoing commitment to continuing the work which has undertaken throughout the life of the Wheal Buzzy Project.

● **With the launch of Bug Life's B Lines and Cornwall's Pollinator action plan in 2019,** ongoing changes in perception towards these enigmatic pollinators, combined with the huge outputs Wheal Buzzy has generated the indication is that there is an obvious need for ongoing conservation effort to halt the species decline of Solitary Bees, associated habitat and its biodiversity in simplistic terms there is still work to be done.



Taking into account ongoing nature recovery programs in Cornwall and beyond, the benefits of Nature to our health and well-being through time spent outdoors. The launch during Wheal Buzzy of the Cornwall Pollinator Action Plan, B lines and the ongoing pressures upon our environment through habitat loss, climate change and other factors, only reinforce the fact that continuation of the work we have begun with Wheal Buzzy should continue and will be successful. Building upon the success of the Wheal Buzzy Project

The desire for knowledge and greater understanding of Solitary Bees in general, from landowners, community groups and individuals alike



Looking at the AONB and our twelve sections alone, the habitat we have improved for Solitary Bees is but a drop in the ocean, there is the potential do so much more both with the AONB and beyond.

Working with existing partners and developing new innovative projects with different partners potentially focusing on the impact time spent in nature has on health and wellbeing. Regardless of what direction the future brings to pollinator projects Wheal Buzzy has opened a door to a greater understanding of Mining bees and the threats they face through its one of a kind approach placing people at the heart of conservation efforts.

The seed has been planted and begun to flourish, it is possible with time and help to have a robust population for our Cornish Mining Bees in a vibrant landscape.



