



## Pollinators and Plants:

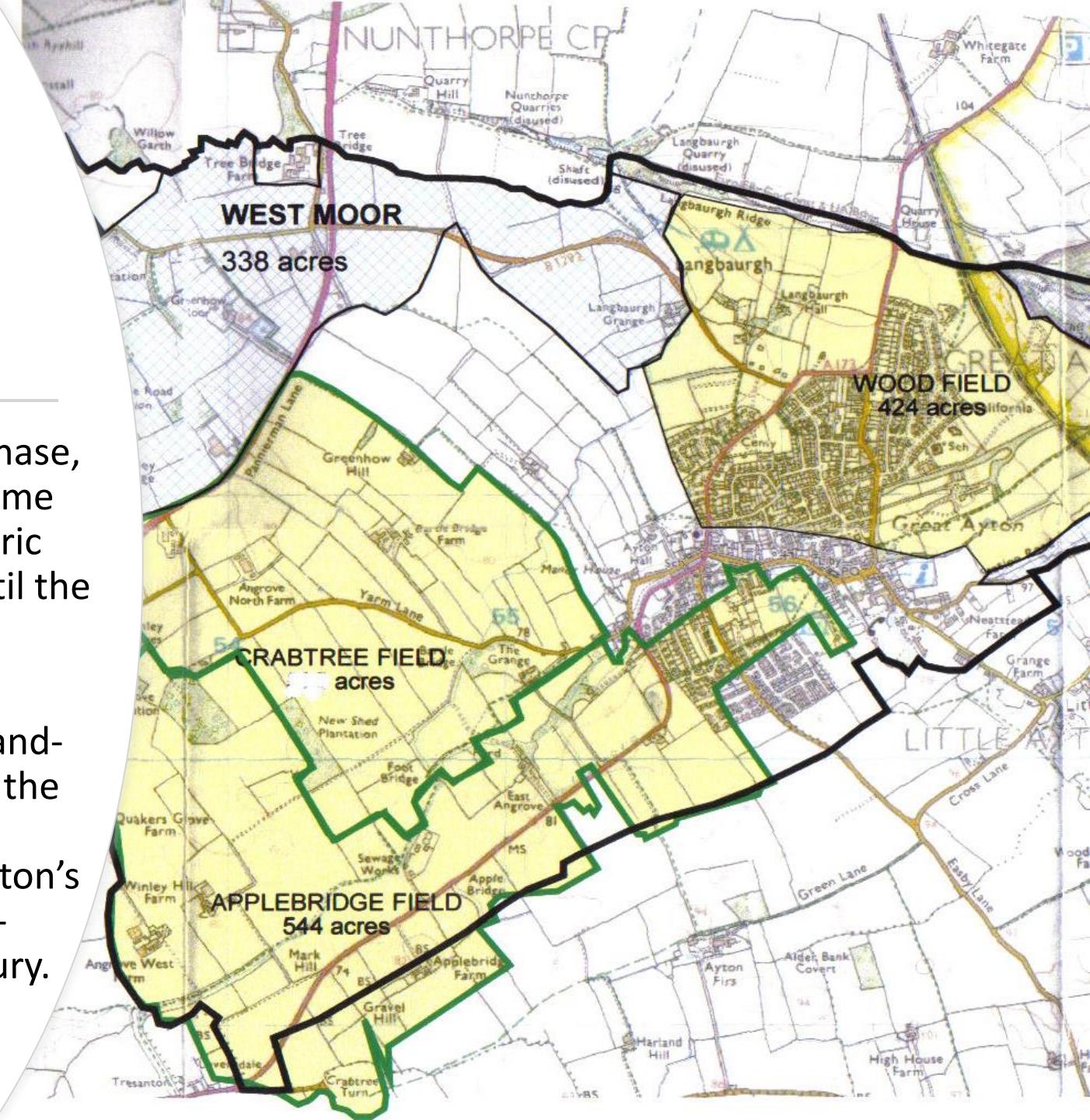
the story of Great Ayton's High Street through the eyes of pollinators

Wednesday 10<sup>th</sup> February 2021

Martin Allen and Caryn Loftus

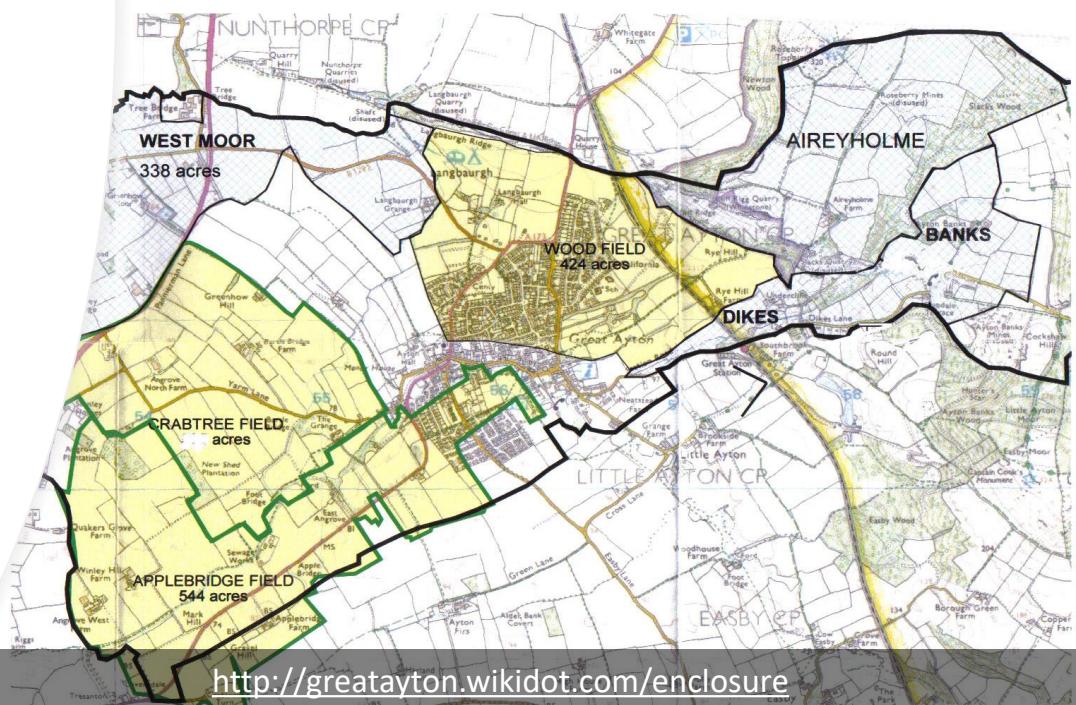
# Pre-1600s

- First settlement phase, extending from some unknown prehistoric date, probably until the tenth or eleventh century AD.
- Second phase in land-management was the open-field phase, which lasted in Ayton's case until the mid-seventeenth century.



# Medieval Great Ayton

- Loss of woodland to make Wood Field
- The wildflower-rich grazing moors and scrub
- Floodplain Meadows
- Enclosure brought hedges, but wildflower plant communities were ploughed up



# A NEW Orchard&Garden:

O R,

THE BEST WAY FOR PLANTING, GRAFFING, AND  
to make any Ground good for a Rich *Orchard*: Particularly in  
the North, and Generally for the whole Common-wealth, as in Nature,  
Reason, Situation, and all Probability, may and doth appear.

With the Country House-wifes *Garden* for *Herba* of Common use.  
Their Virtues, Seasons, Ornaments, Variety of Knots, Models  
for Trees, and Plots, for the best Ordering of Grounds and Walks.

A S ALSO

The Husbandry of *Bees*, with their several Uses and Annoyances:  
*All being the Experience of Forty Eight Years Labour*, by William Lawson,  
reprinted from the Third Edition with a Preface by Eleanour Sinclair Rohde.

Whereunto is newly added the Art of Propagating Plants with the true  
Ordering of all manner of Fruits, in their Gathering, Carrying home, and  
Preservation.



## 1600s-1700s

– wealth of area increases due to enclosure of open fields

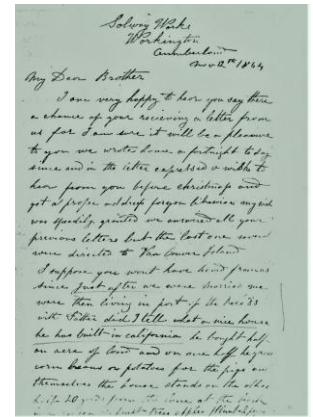
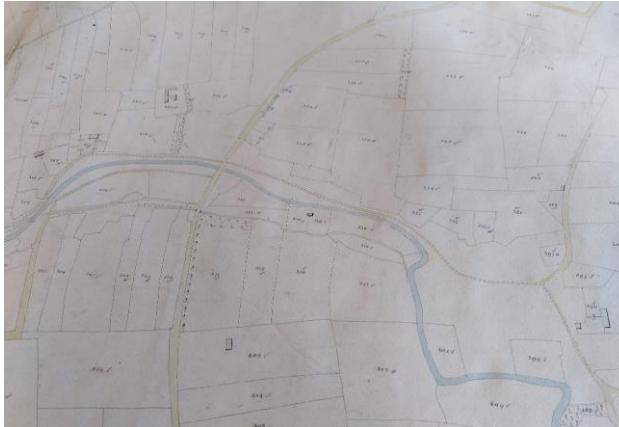
Q: Was early planting of gardens and orchards influenced by the publication of local author William Lawson, in 1618, of 'A New Orchard and Garden'?

Q: Are there any paintings/old photographs of planting in gardens?

# 1800s to present day

## - growth of Great Ayton

- **Q: Do any residents have old garden planting plans with their house deeds?**



## Change from 1940 onwards

- More loss of pasture
- Mechanical cutting of hedges
- Herbicides for arable weeds
- Loss of vegetable gardens & scruffiness
- More easy-maintenance lower flower-diversity



# Change over the last one thousand years in Great Ayton.

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- Open-access spacious biodiverse landscape
- Compartmentalised privatised monocultures



# Great Ayton's High Street



Reproduced with the permission of the National Library of Scotland

# High Green

**Q: Why were there a lot of orchards marked on the 19th century OS maps of the village?**

**Q. Do any residents have memories/remnants of old orchards in the village?**



Great Ayton, The Friends' School.

# High Green - orchards

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- Orchards in the area were tall fruit trees, mainly apple
- Planted in a grid on species-rich grassland
- Grazing by lambs/ram and/or used for hay.
- Often where honey-bee hives were located.

With thanks to:  
Nick Jacott and Helen Herring for photos

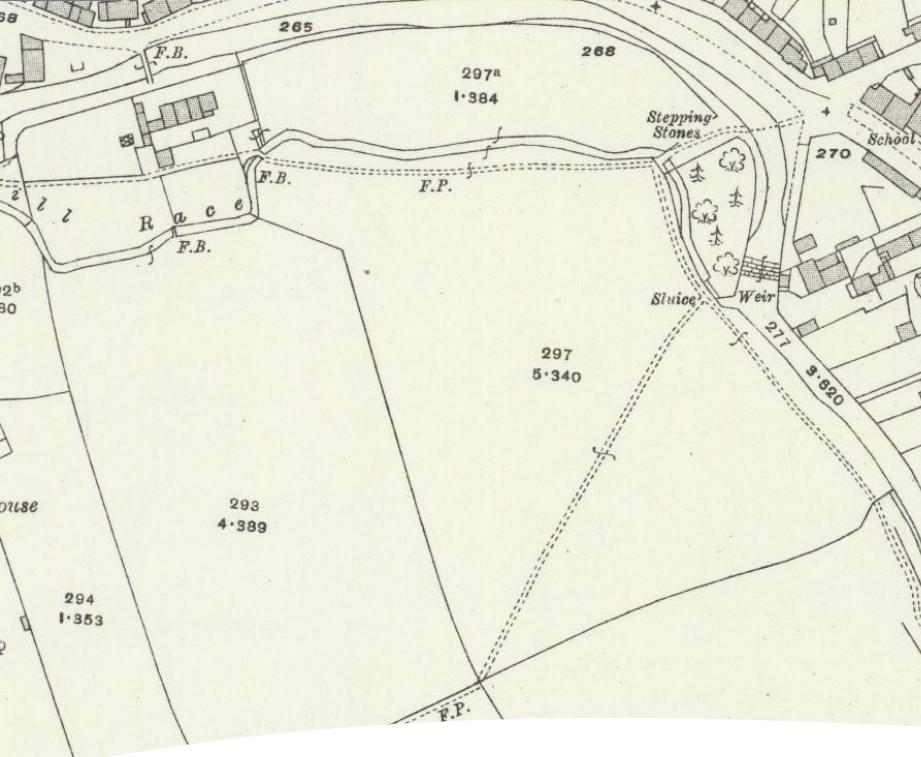


## High Green - plants

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- Fantastic winter bulbs already
- Add cowslips and buttercups interplanted with daffodils around the edges?
- What new trees should be added?





# Waterfall Park

- The 25" OS map from 1927 shows Waterfall Park and the course of the old mill race.
- The Lidar image on the right shows clearly the old ridge and furrow in what was part of Applebridge field.

[www.captcook-greatayton.com/locations/waterfall-park](http://www.captcook-greatayton.com/locations/waterfall-park)

# Waterfall Park - Beetles

- Seriously, once you start looking they are everywhere
- Pollen beetles, dock beetle and red soldier beetle shown here



By James Lindsey at Ecology of  
Commander, CC BY-SA 3.0,

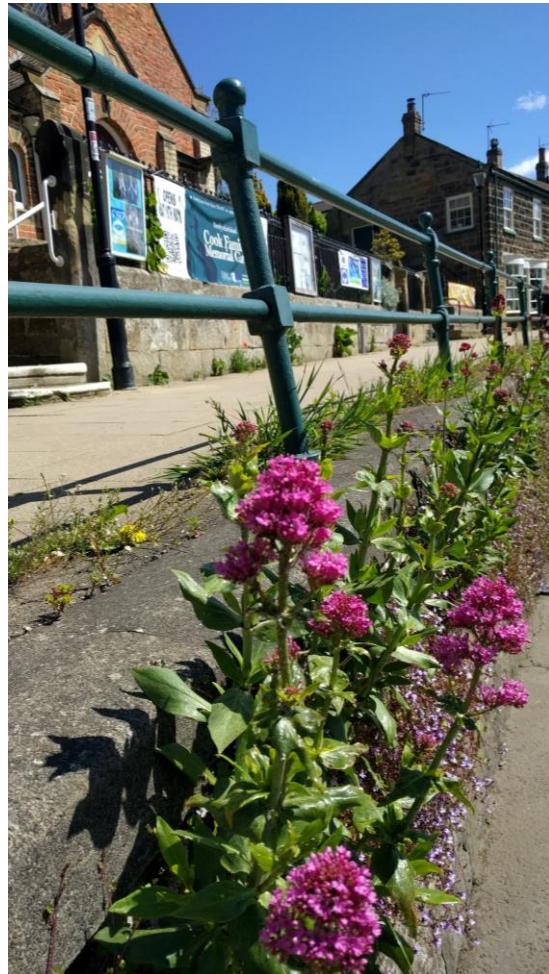


By sarefo - Own work, CC BY-SA 3.0,

## Waterfall Park - plants

- Already 48 species of flowers, 23 of trees and shrubs, plus 17 grass, ferns and sedges
- We added another 9 wildflowers that are good for pollinators – look out for the primroses now



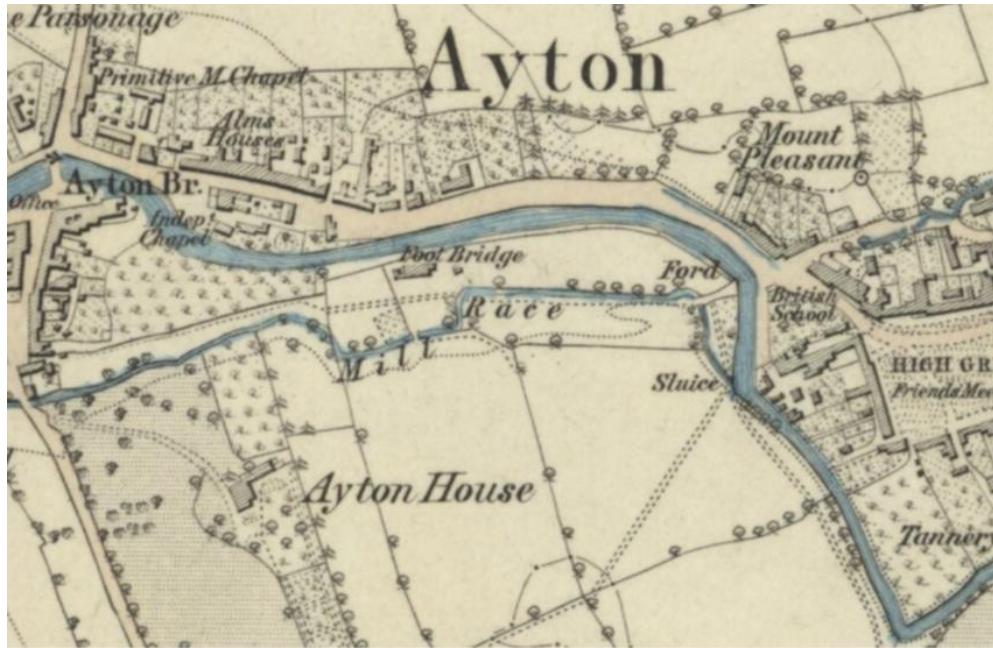


By Richerman - Own work, CC BY-SA 3.0

# Village Hall - Butterflies and moths

# Village Hall - plants





## Beech Close

- 1853
- 2019

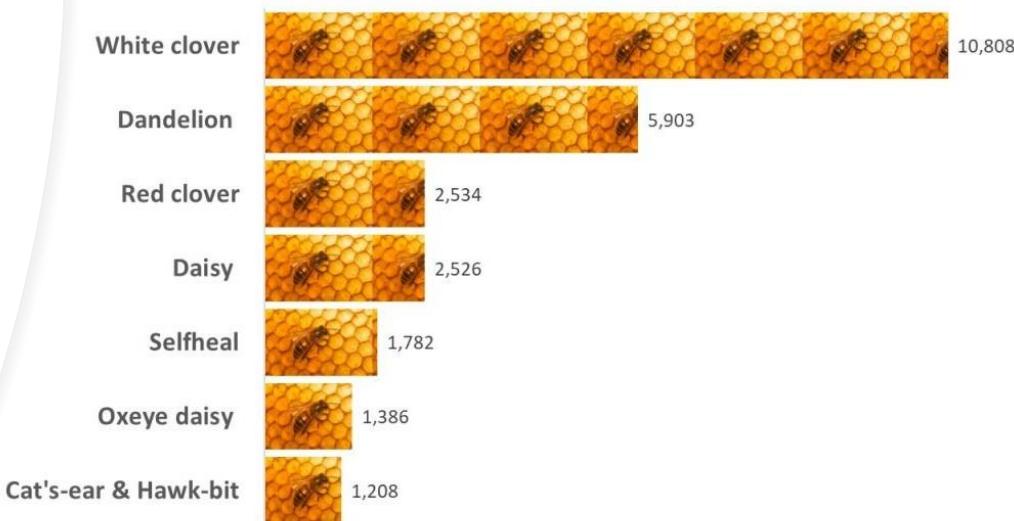


# Beech Close - Honey and solitary bees

- Honeybees aren't native
- We can measure the amounts of nectar a plant produces
- Plantlife do this for your lawn and white clover makes lots of nectar
- <https://www.plantlife.org.uk/everyflowercounts/2019-results/>



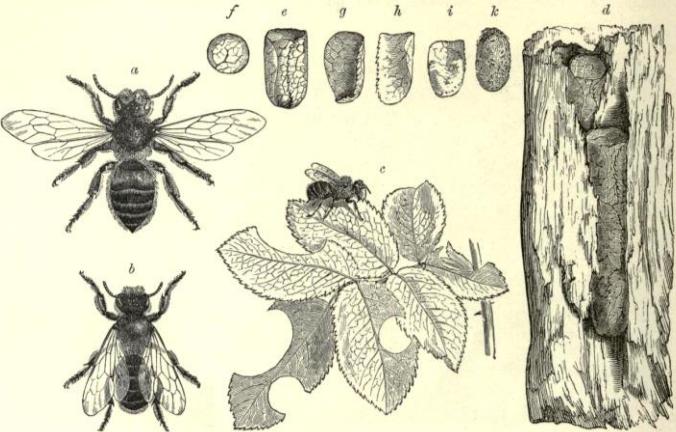
7 nectar producers were (average µg nectar sugar/quadrat/day):



# Beech Close - plants

- Leafcutter bees use rose leaves from gardens
- Wool carder bee uses fluff from the plant Lamb's-ears
- They all like dandelions ☺

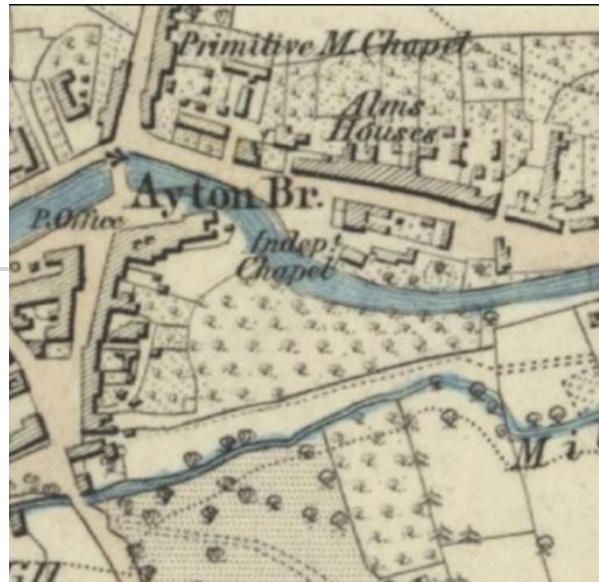
Engraving by Richard Lydekker - Lydekker, R. 1879 The Royal Natural History. Volume 6. Frederick Warne and Co. page 36, referenced on page 43, Public Domain

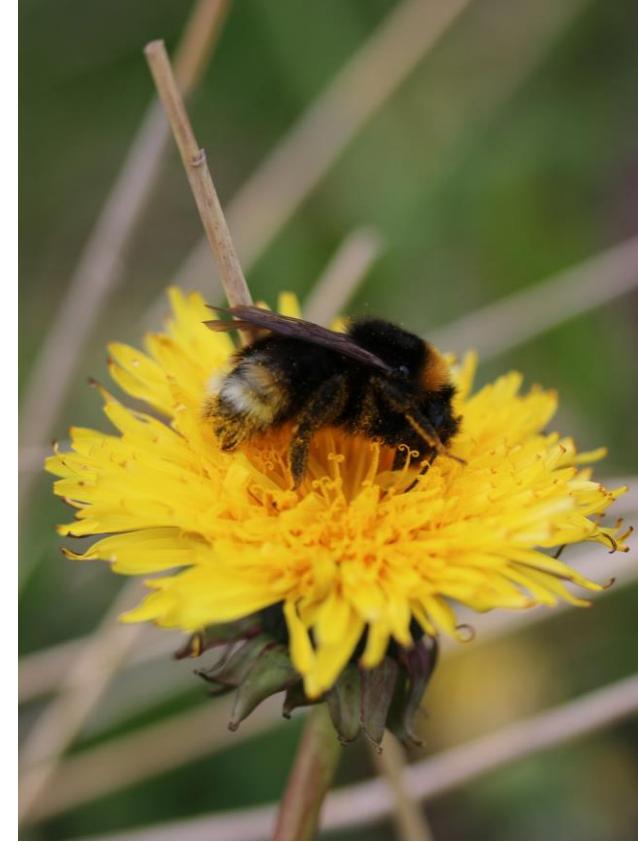


1858·August·21st·YORK·HERALD·¶

*STOKESLEY·PETTY·SESSIONS--* On Saturday, before Jas·W·Pennyman, and George·  
Marwood·Esqrs. -- Anthony·Pearson, of Stokesley, was charged by John·Lowther, Great·  
Ayton, with opening his house for the sale of beer before 12:30·clock·a.m., on Sunday, the 8th·  
inst. Fined·6d·and·costs --- William·Eccles·of·Great·Ayton, was charged by Elizabeth·Cail, of·  
the same place, with wilfully·damaging some apples in her orchard. Fined·4d·and·costs·¶  
--- Humphrey·Sanderson, of Great·Ayton, is charged by the said Elizabeth·Taylor, with the like·  
offence. Fined·4d·and·costs.¶

# Hollygarth





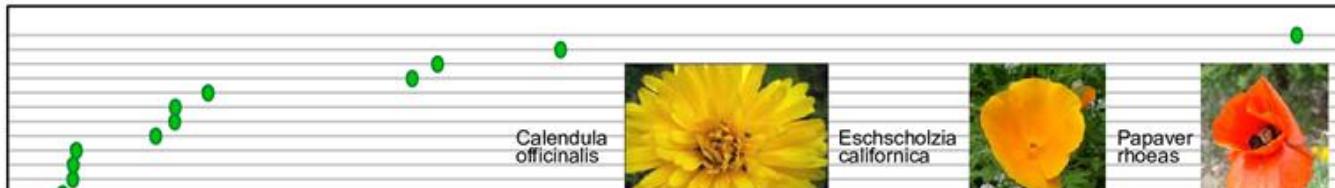
## Hollygarth - Bumblebees

- 24 different species in the UK
- Colony numbers are adversely affected if there is no food in September

# Hollygarth - plants

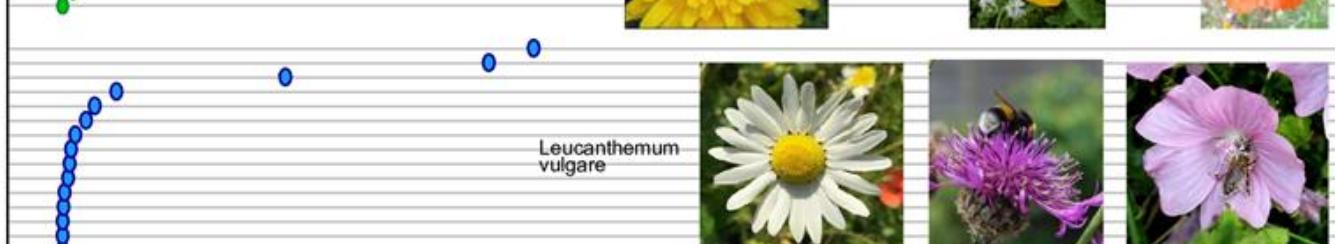
## A. ANNUALS

*Papaver rhoes*  
*Eschscholzia californica*  
*Calendula officinalis*  
*Cosmos bipinnatus*  
*Linum grandiflorum*  
*Nigella damascena*  
*Centaurea cyanus*  
*Coreopsis tinctoria*  
*Gypsophila elegans*  
*Malcolmia maritima*  
*Coreopsis triplinervia*  
*Lobularia maritima*



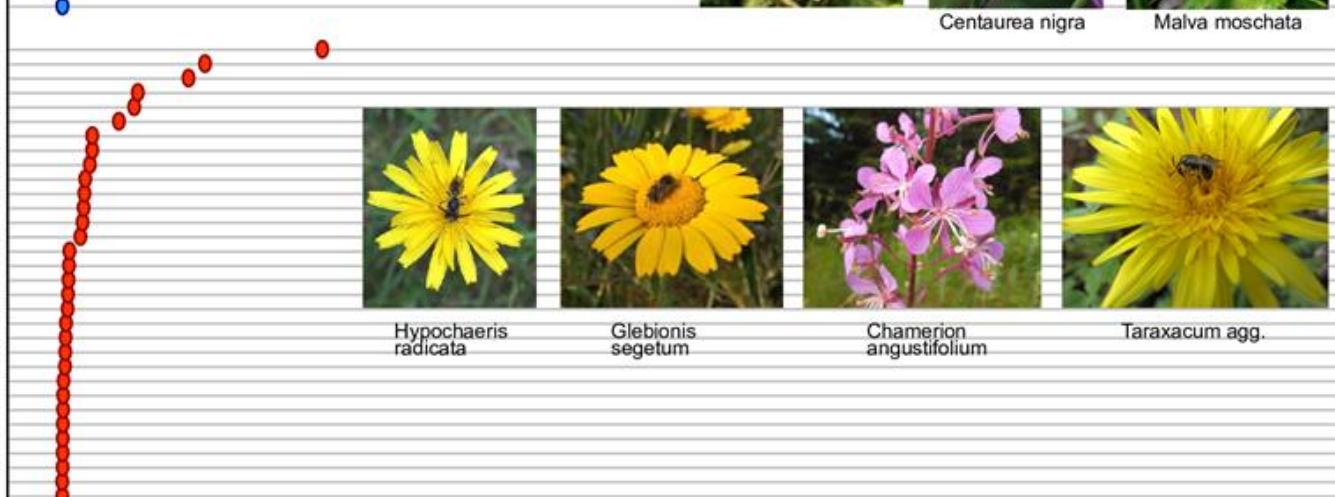
## B. PERENNIALS

*Malva moschata*  
*Centaurea nigra*  
*Leucanthemum vulgare*  
*Ranunculus acris*  
*Leontodon hispidus*  
*Silene dioica/latifolia*  
*Echium vulgare*  
*Reseda lutea*  
*Lotus corniculatus*  
*Prunella vulgaris*  
*Trifolium pratense*  
*Vicia hirsuta*  
*Origanum vulgare*  
*Daucus carota*  
*Gaulium verum*



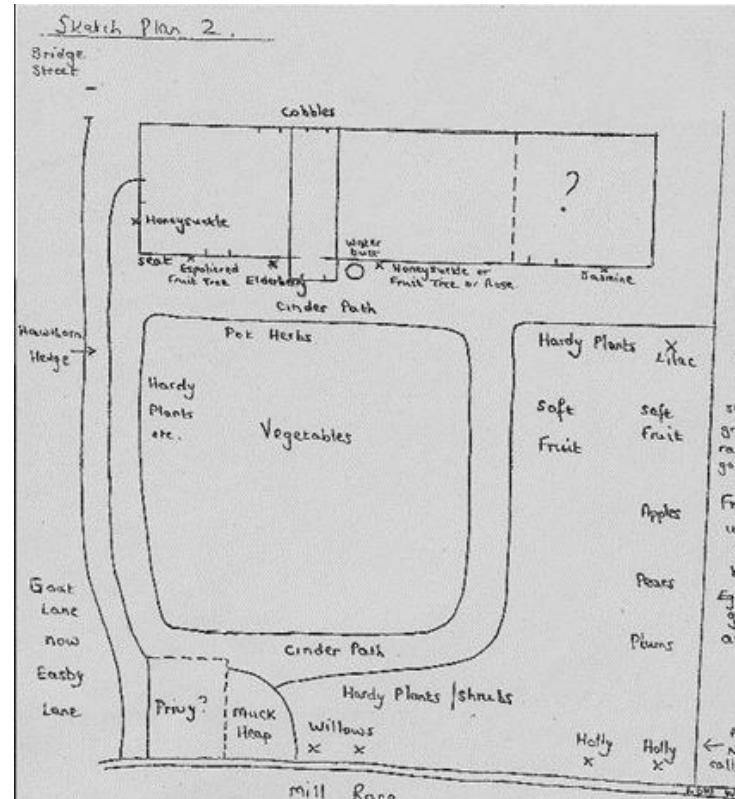
## C. WEEDS

*Taraxacum agg.*  
*Chamerion angustifolium*  
*Glebionis segetum*  
*Hypochoeris radicata*  
*Tripleurospermum inodorum*  
*Scorzoneraeae autumnalis*  
*Crepis capillaris*  
*Bellis perennis*  
*Matricaria discoidea*  
*Sonchus oleraceus*  
*Lapsana communis*  
*Cirsium arvense*  
*Senecio jacobaea*  
*Ranunculus repens*  
*Ceratium fontanum*  
*Geranium molle*  
*Veronica persica*  
*Vicia cracca*  
*Epilobium montanum*  
*Lamium purpureum*  
*Galeopsis tetrahit*  
*Sinapis arvensis*  
*Trifolium repens*  
*Stellaria graminea*  
*Plantago lanceolata*  
*Funaria officinalis*  
*Epilobium olitorum*  
*Polygonum aviculare*  
*Sisymbrium officinale*  
*Persicaria maculosa*  
*Gaulium album (syn. G. mollugo)*  
*Capsella bursa-pastoris*





# Cook Family Memorial Garden



Possible historic reconstruction of Cook's Farter's cottage  
Garden, mid to late Eighteenth Century, Great Ayton  
North Yorkshire

- Based on Grot drawing & O.S. map 1856

# Cook Family Memorial Garden

## - Hoverflies and other flies





# Cook Family Memorial Garden - plants





# Low Green





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## Low Green - wasps



## Additional areas of interest

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- Station garden; planting alder buckthorn, the food plant for brimstone butterfly caterpillars
- Churchyard – a change of management allows it to flower



# What next?

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Two things we can do

- More native plants in public places
- More flowering plants (native or non-native) in our gardens



# What next for the Bug Trail

