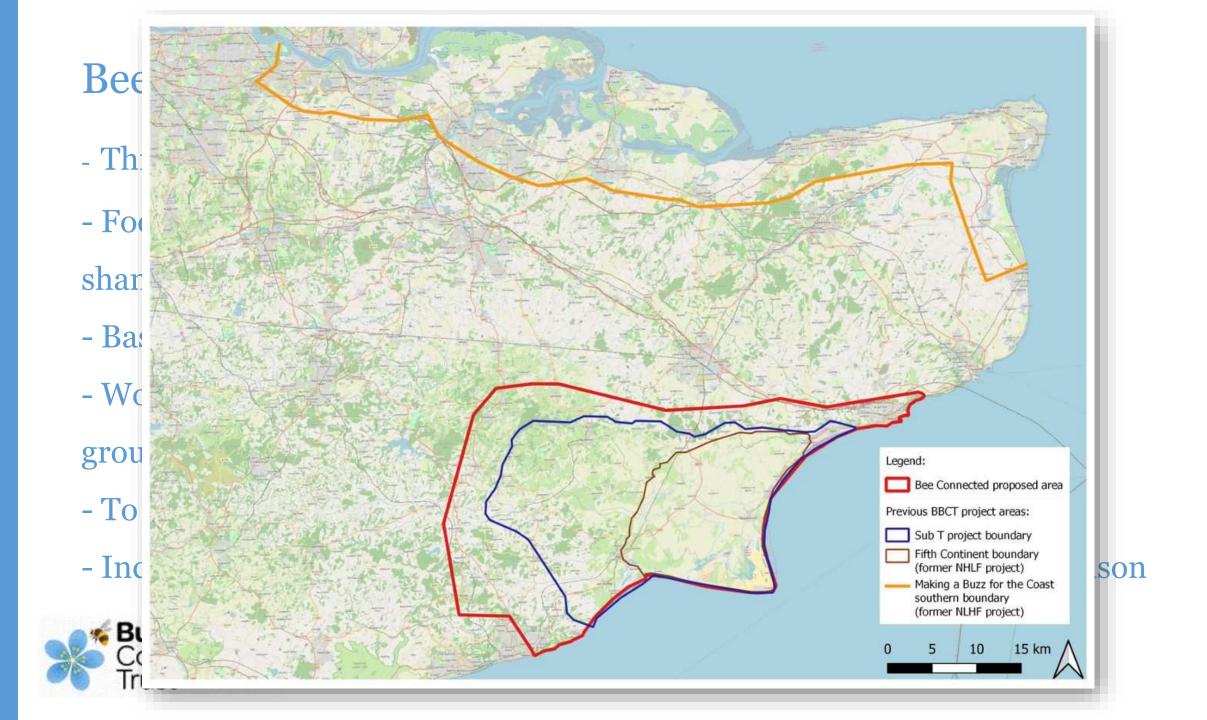
Bee Connected – working with the local community to deliver landscape scale benefits for bumblebees





Dr Nikki Gammans



Sense of community

- Working with all landowners within the community to give bespoke advice
 - Parish Councils
 - Community groups
 - Small holders
 - Farmers
- Engaging with the local community by giving talks, walks, identification days and events
 - How people can help
 - Recruiting volunteers
 - Sense of local ownership and pride



Parish councils

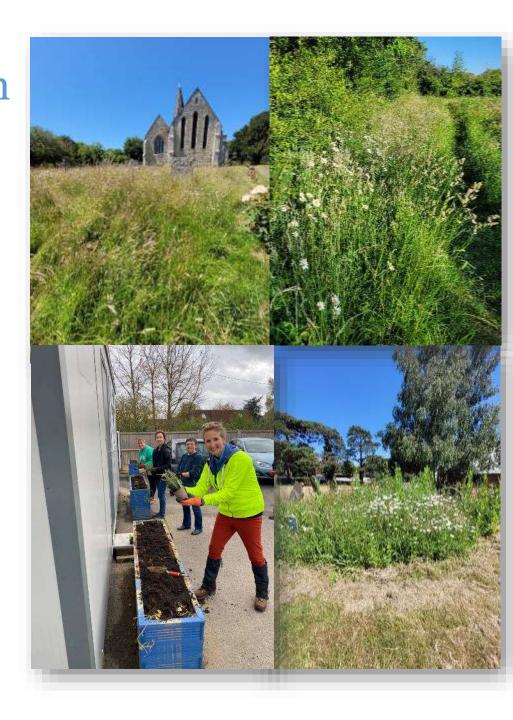
- Tenterden
- Rolvenden
- Newenden
- Hythe
- Ivychurch





Community groups- Woodchurch Advised on churchyard Meadow restoration Planters around village Donated plants, seeds and bulbs Run two bumblebee garden parties Village events





Small holders

- Meadow management & restoration
- Natural regeneration
- Green hay from Rare breeds centre & RSPB Dungeness
- Native & local provenance wild flowers
- Donate yellow rattle
- Ponds dug by RMCP







Farmers

- 58
- Bespoke 121 advice
- Bumblebee farm days
- Wild flower surveys
- BeeWalks





Volunteers



Results

74 BeeWalks across the project area

58 farmers and **70 other landowners** who have received management advice. Total **128**.

Advised on approx. **3100 ha** and **11 miles** of Network Rail track and **100 miles** of B roads.

Support a total of **81 volunteers.**

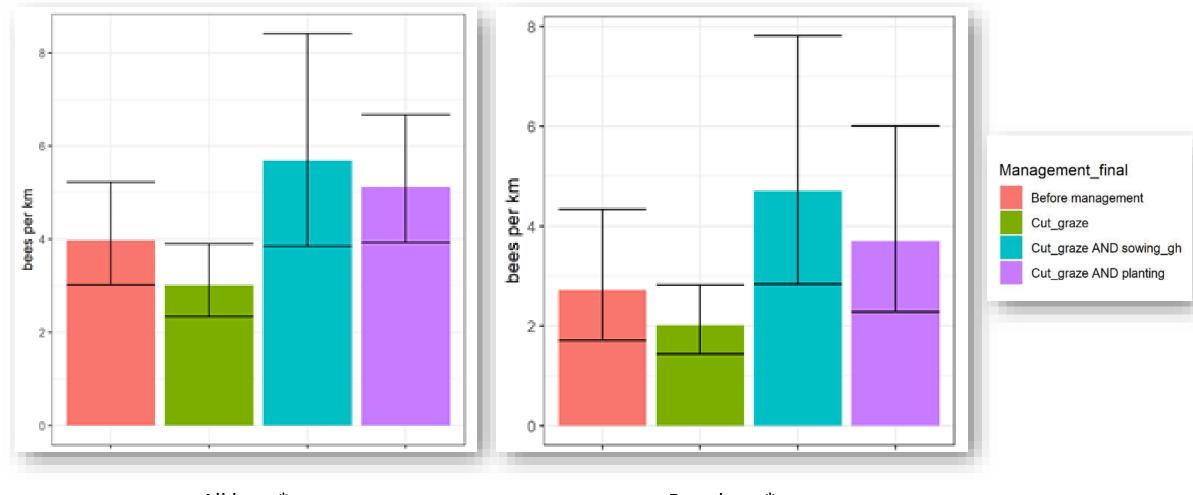
Outreach to over **2**, **000 people** per year.

Increased **distribution** and **knowledge** of rare bumblebee species

Sense of community ownership and engagement



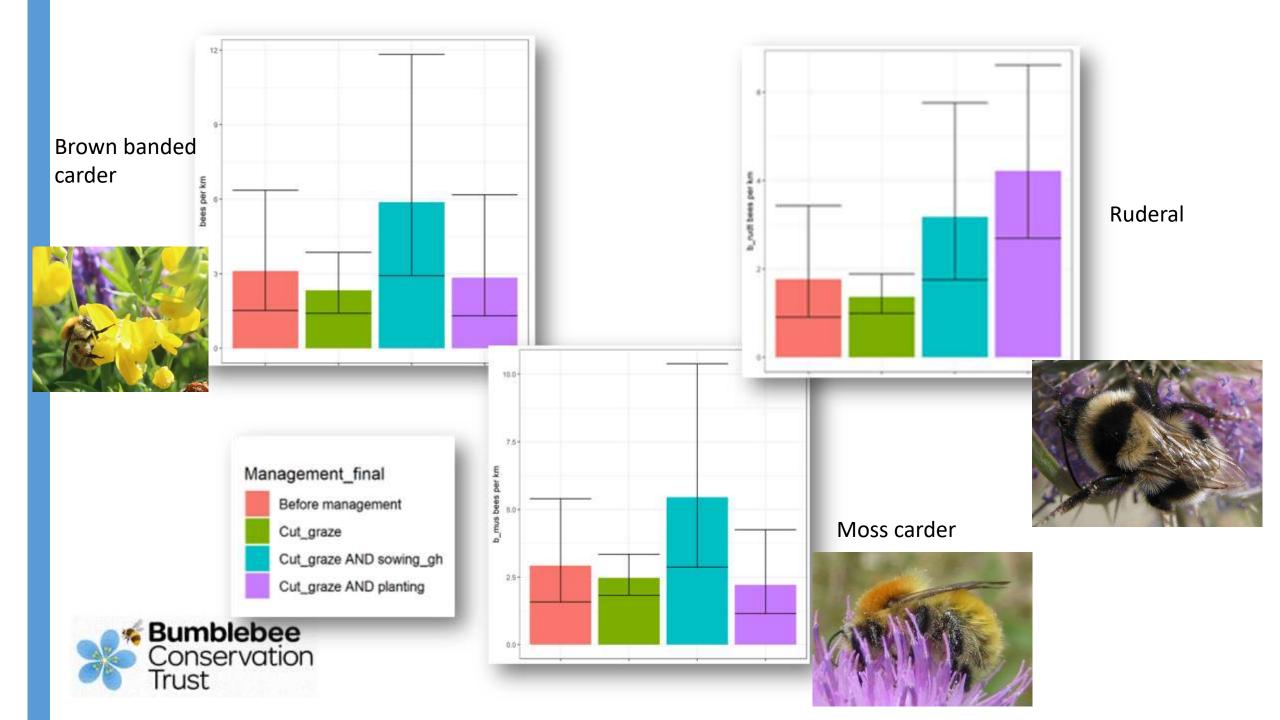




All bees*

Rare bees*





Thank you

Twitter project page beeconnected@nikkigammans Facebook page Bee Connected Instagram @beeconnectedproject







Managing parks for pollinators

Tim Bell- Ranger Services and Environmental projects manager

Kent Country Parks







Brewers Road, Gravesend, DA12 3HX 03000 414747 @ShorneWoods



Lullingstone Country Park Castle Road, Eynsford, Kent, DA4 0JF 03000 411811 @LullingstoneCountryPark



Trosley Country Park Waterlow Road, Vigo Village, Meopham, Kent, DA13 0SG 03000 411811 @TrosleyCountryPark



Manor Park Country Park

St Leonard's Street, West Malling, Kent, ME19 6PE 03000 414747 @ManorParkCountryPark



Grove Ferry Picnic Site

Upstreet, Kent, CT3 4BP 03000 420993 COUNTRY

Pegwell Bay Country Park A256 Sandwich Road, Pegwell Bay, Ramsgate, CT12 5JB 03000 420993 @PegwellBayCountryPark



White Horse Wood Country Park Detling Hill, Maidstone, ME14 3JE 03000 420993















Brockhill Country Park Sandling Road, Saltwood, Hythe, Kent, CT21 4HL 03000 420993 @BrockhillCountryPark



PARK

Teston Bridge Country Park

Teston Lane, Teston, Kent, ME18 5BX 03000 411811 @TestonBridge

Learn more about our parks at kent.gov.uk/countryparks

Biodiversity and The Country **Parks** strategy

Aim 1 of the Country Parks strategy is to provide a Country Park network of well connected, high quality and biodiverse greenspace across Kent.

Provide high quality parks that are maintained and improved in line with our management plans, statutory and grant obligations and that, where possible, the standards of our management are independently tested and verified.

Our Country Parks are well connected through physical networks and collaborative partnerships to enable the best results for people, nature and the environment.

Maintain or, where possible, enhance the biodiversity, heritage and landscape values of the sites ensuring that opportunities to connect communities to their value are provided.

General overview

- 534 hectares of land under management
- 270 hectares is designated Site of Special Scientific Interest
- Over 1 million visitors per year
- Volunteers committed over 800 days to help deliver our objectives in 2021-22
- We worked in partnership with the Old Chalk New Downs Project, Darenth Valley Landscape Partnership, Kent Downs Area of Outstanding Natural Beauty and local neighbours

Grassland management

The ranger teams manage:

- 48ha of chalk grassland
- 6.5ha of acid grassland
- 15ha of lowland meadow
- Maintain a rough grassland and herb fringe to all amenity cut grass areas
- Manage open glades of herbs, grasses and wildflowers throughout the woodlands connected by the ride system
- Manage 3km of heavy rough throughout Lullingstone 18 hole golf course bordering the woodland edge that acts as a wildlife corridor throughout the golf course.

Wildflower meadows





At Brockhill a new wildflower meadow with pond area is under creation to help improve the habitat for solitary bees





Acid grassland

The combination of veteran trees and acid grassland create a remnant wood pasture habitat similar to the neighboring Cobham Woods estate





Chalk grassland

A combination of grazing and mechanical cutting create the conditions for wildflowers to thrive





At Trosley the Maidstone mining bee that had been extinct since 1935 was found to be alive and well by a local expert called Grant Hazlehurst, it's called Andrena Polita. A volunteer group carry out a regular bumble bee transect



We graze some of our sites with cattle or goats. We have just started a new herd of Cheviot goats grazing at Preston Hill. We work with local farmers to try and diversify grazing and share grazing stock across a local area.



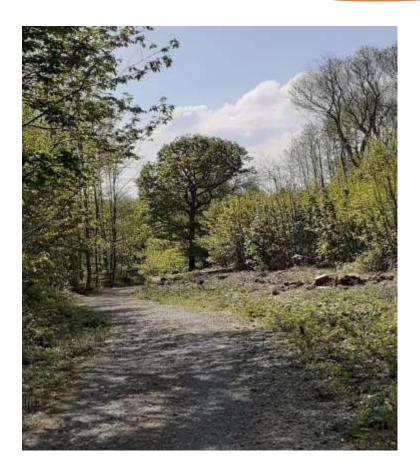
Woodland management

- Coppice 3.5ha of Sweet Chestnut across 4 sites annually on an 18-year rotation. All cut timber is used to heat the visitor centres or sold to the public as firewood
- Manage 7km of 3 zone ride network with connected glades that link the coppice coupes and prevent the fragmentation of habitat
- Over 600 veteran/notable trees are under active management and monitoring providing hollows and water for pollinators
- Have a 32ha project to improve the woodland understorey and connect all pockets of woodland at Shorne Woods, planting over 20,000 mixed species that will improve the food supply for pollinators

Coppice- all cut timber will regrow so this is a sustainable form of woodland management that is also beneficial to wildlife.



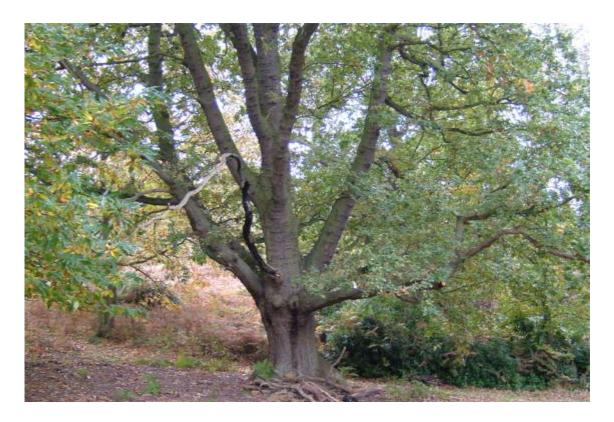
A fresh cut 3 zone ride 30m wide and a fresh cut glade in the coppice woodlands, these are crucial habitat corridors for wildlife. Each zone of the ride benefits different wildlife from pollinators and birds to small mammals





Veteran trees provide water, shelter and food for wildlife





Across all our woodlands we aim for a mixed age and species mix to benefit as much wildlife as possible.



Community engagement through education visits, events and volunteers





Volunteers at Brockhill helped seed the meadow and drill holes to create cavities in old fenceposts. Volunteers and staff also carry out bee and butterfly transects across the parks.



Community engagement through interpretation and interpretive trails





And finally.... Have lunch with the pollinators









How can you help?

Stop the mow, let it grow! Let dandelion and red clover flower before mowing it off. the tailer grass shelters bees and insects.





0

 \mathcal{Q}

Sow wildflower seed mixes that includes yarrow, wild thyme, corncockle and red clover.

Plant pollinator friendly species that flower throughout the seasons not just in summer.

Sorting Summer tilliar to Hard Litting in Assault Habe, Holly, Bugle,

Crocus

Barage. Honeysuckle. Echinacea, Lavender

0

(Sep to Oct) Antunna croces. Chrysanthemums Salvias, Bablias

Automa

Leave some bare earth for mining bees and build a thee home for your garden.





Grow your own truit and vegetables.

1

The end

Kent's Plan Bee Summit 2022

STRUTT

BNP PARIBAS GROUP

The Importance of Woodland Management for Pollinators

Simon Ginnaw, Strutt & Parker

HOW DO POLLINATORS USE WOODLANDS

Food







HOW DO POLLINATORS USE WOODLANDS

Breeding

- Pools, puddles, ditches, springs, seepages and water-filled rot-holes of trees, which provide habitats for ٠ hoverflies and other pollinators with aquatic larvae
- Dead wood and old trees which provide habitat for flies and beetles with 'saproxylic' larvae, for aerial-۲ nesting bees and wasps, and for hibernating insects
- Old rodent burrows and dense vegetation are used for bumblebee nesting ۲
- Banks and dry ground in sunny rides and clearings provide habitat for ground-nesting bees (e.g. mining ۲ bees) and their flower-visiting parasites (e.g. beeflies and nomad bees)
- Dung for various flower-visiting flies e.g. dung flies, anthomyiids, muscids and Rhingia hoverflies ۲
- Carrion for flower-visiting blowflies (e.g. bluebottles and greenbottles) ۲





HOW DO POLLINATORS USE WOODLANDS

Overwintering





The edge effect

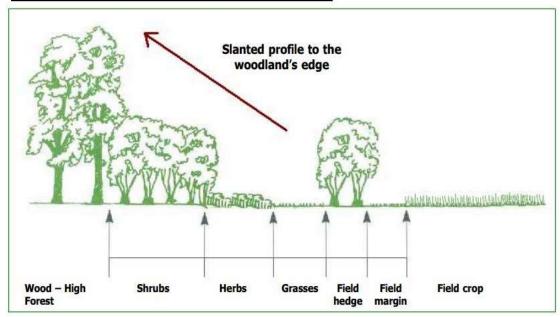






The edge effect

Diagram showing a desirable woodland edge profile:



Grasses : an annually cut grass sward.

Herbs : a herbaceous sward cut on 2 to 3 year rotation to promote flowering plants.

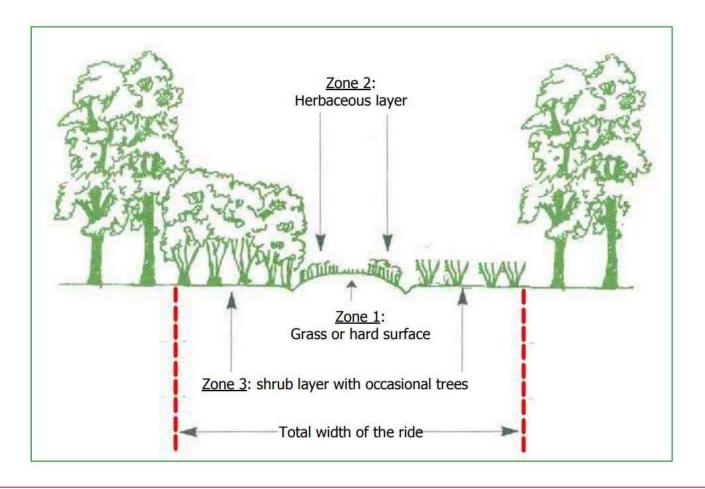
Shrubs : a shrub zone cut on a 5 to 8 year cut to develop shrubby growth. **Field margin** : this should be at least 2 metre.



Kent's Plan Bee Summit 2022

Rides and clearings

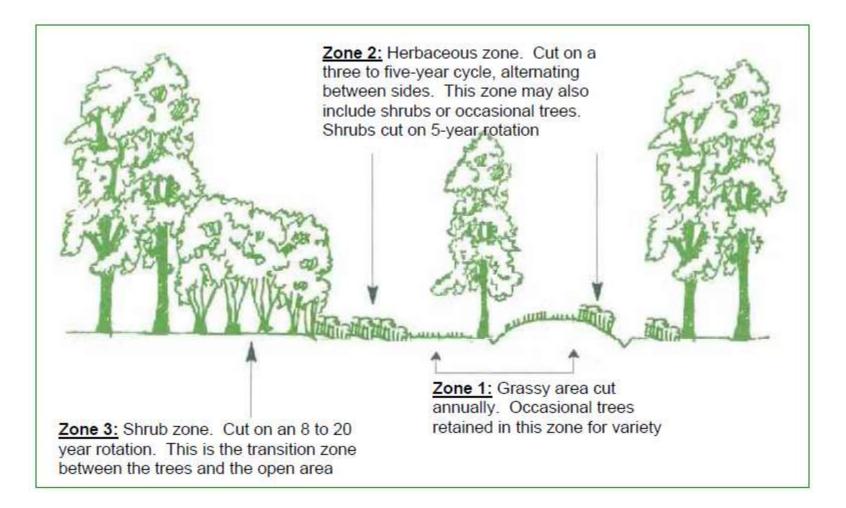
Diagram of the zoning of a ride







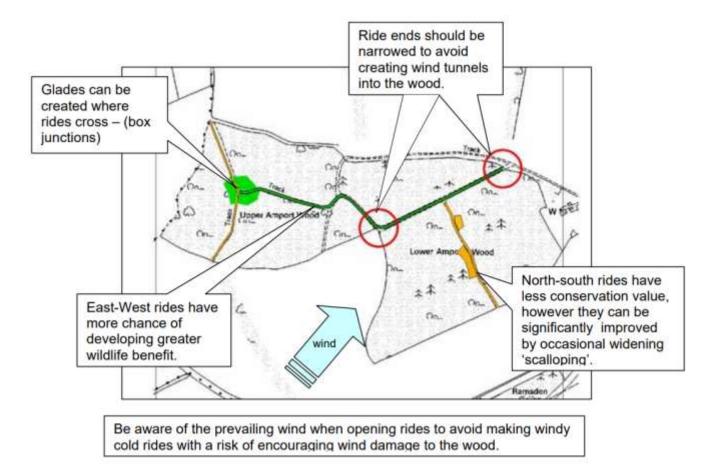
Rides and clearings







Rides and clearings







Rides and clearings

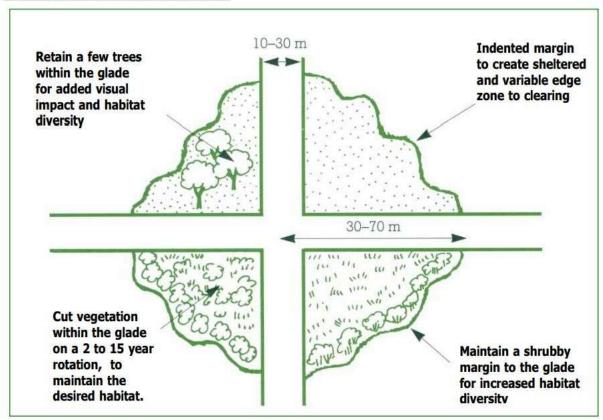
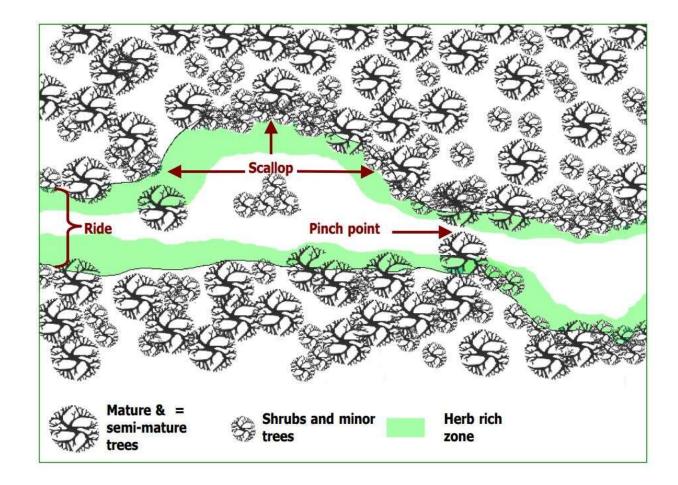


Diagram showing a box junction:





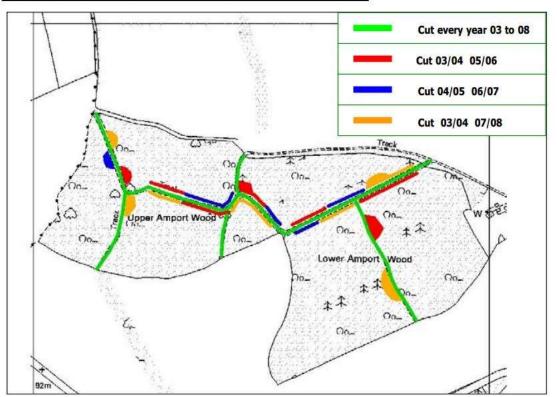
Rides and clearings





Rides and clearings

Example of a map for the ride and glade cutting programme.





TREE PREFERENCES

Leaving trees for pollinators





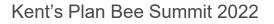


TREE PREFERENCES

Leaving trees for pollinators







TREE PREFERENCES

Leaving trees for pollinators









Coppicing & Clear-felling







Thinning







Thinning







SPECIES DIVERSITY

Creating diversity









Creating diversity

Top 10 native tree species for Lepidoptera:

- Oak species (Purple Hairstreak,)
- Willow species
- Birch species
- Hawthorn
- Blackthorn
- Aspen
- Crab Apple
- Alder
- Elm
- Hazel







Consider local provenance plant seed/plugs

The following will be of particular value:

- Common Bird's-foot-trefoil, Greater Bird's-foot-trefoil (Wood White, Dingy Skipper)
- Meadow Vetchling, Tufted Vetch, Bitter Vetch (Wood White)
- Wild Strawberry, Barren Strawberry (Grizzled Skipper)
- Common Dog Violet (High Brown, Dark Green, Silverwashed, Pearl-bordered, Small Pearl-bordered Fritillaries)
- Primrose (Duke of Burgundy)





Consider pollinator food plants









Consider pollinator food plants











Wilder Blean

Benefiting pollinators through the rewilding approach

Kora Kunzmann Wilding Evidence Ecologist, Kent Wildlife Trust

Wilder Blean Project

Aim: Restoration of complete natural process to a lowland English woodland. **Objectives:**





Study Design: 'before, after, control, impact' (BACI)

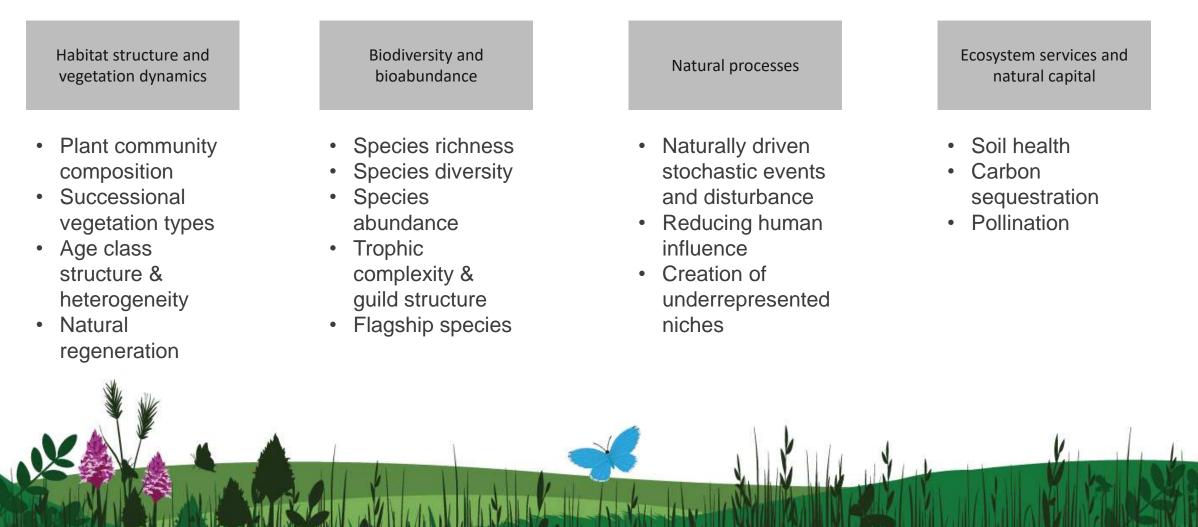
Bison assemblage ~210 ha

Domestic assemblage ~250 ha

Control (no grazing) ~100 ha

Monitoring programme

Objective: Evaluate how reinstating naturalistic grazing drives landscape-scale ecological processes and integrity.



Bison behaviour and pollinators

- Bark stripping and scratching
- Dust bathing
- Creation of open space

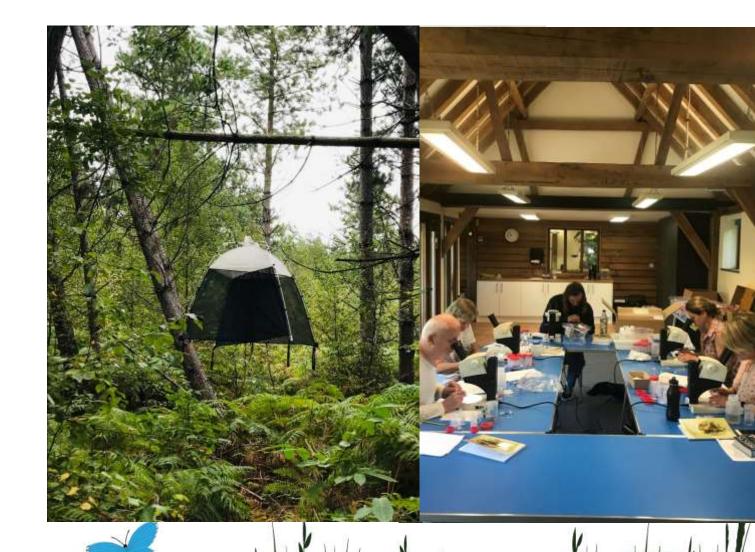




Wilder Blean Pollinator Monitoring

- Vegetation surveys
- UKBMS Butterfly transects
- Heath Fritillary foodplant monitoring
- Heath Fritillary counts (BC)
- Standardised invertebrate survey
- Flight intercept trapping –





Thank you!





Managing community green spaces for pollinators

Tony King, Lyminge Parish Council

Context / Opportunities

Lyminge Parish Council owns and manages local green spaces for the community Local community conscious of issues and urgency of action (Lyminge Climate Action group)

Guiding principles (personal, not yet "policy" as such):

Climate, Biodiversity, and Pollinator "crises" – all interlinked

Impacts are significant for people globally and locally

"Every little helps" (If not us, who? If not now, when?)

Management strategies can be improved for benefits to biodiversity and pollinators, and for people

Promoting wild-flowers by thoughtful mowing regimes (and some seeding of yellow rattle and other appropriate native flowers)

Pollinators need trees too! Tree-planting of native species

Participatory monitoring of results (simple, relative to the scale and significance of this work) Making the most of local experts and volunteers (thanks everyone!)





Tayne Field, Lyminge

Part owned and managed by Lyminge Parish Council

Part owned by KCC and managed by School

Centre of village, primarily for recreation

High archaeological significance



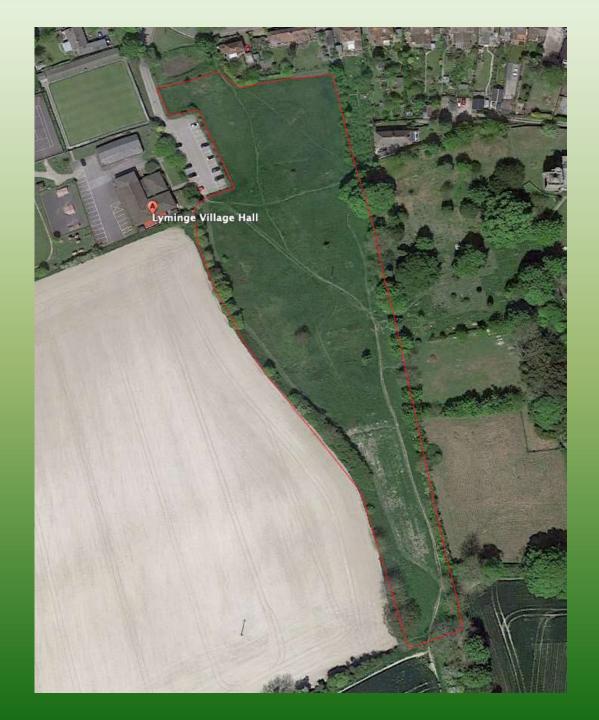


Grass buffer strip	
Tree and scrub planting	1

Cessation of regular summer mowing to increase sward height and encourage flowering plants. This will provide a buffer strip to the Nailbourne, and habitat for insects, reptiles and amphibians. Prominent areas may be cut annually in autumn; some areas should be left uncut to provide a winter refuge and only cut on a rotation of 2-3 years.

Mixed native tree and shrub planting using 'whips' as appropriate to conditions to gap up existing tree screen and provide variety of habitat types. This will encourage bird nesting and invertebrates. Indicative positions shown but species composition and location will be determined by local conditions.







Court Lodge Green, Lyminge

Owned and managed by Lyminge Parish Council

Edge of village, on a slope, primarily for walking, dog-walking, and biodiversity



 · · · · · · · · · · · · · · · · · · ·
 Public footpath
 Vehicular access
Wildflower
meadow
Wildflower
seeding patches
Scrub/hedgerow
planting
Tall herbs and
 bramble
Pond
Memorial Grove
Memorial Grove
vista
VISLO
L

L	1	
	Public footpath	2m wide corridor to be mown as required to maintain
		access
	Vehicular access	manage as above
	Wildflower	Tractor grass cutting twice per annum in April
	meadow	(when/if dry enough) and August. Rake off/collect
		cuttings and remove off site or moved to designated
		composting areas on site
	Wildflower	Manage as above. Patches prepared in October 2019
	seeding patches	by rotovating and distributing emorsgate seed mix
		EM2F "General purpose wildflower meadows".
	Scrub/hedgerow	Hedgerow planting to fill gaps and provide screen
	planting	from Village Hall car park completed in autumn 2018
		and 2019. Additional proposed small blocks of scrub
		planting to encourage breeding birds, and provide
		shelter belts/ connectivity.
	Tall herbs and	No intervention; areas of existing high fertility and
	bramble	bramble thicket to be left to provide winter shelter,
		encourage insects and food source for birds
	Pond	New wildlife pond to be excavated when
		funding/opportunity arises
	Memorial Grove	Trees planted in 2018 to commemorate end of The
		Great War and those from Lyminge that were lost.
		Regular mowing understood to have been carried out
		by T. Seymour, but future management TBC.
	Memorial Grove	Area of tall ruderal herb; to be cut 2-4 times annually
	vista	to reduce height, encourage grassland formation to
		maintain viewpoint and prevent vegetation obscuring
		view north over village.





Red Bartsia, and the Red Bartsia Bee, on Court Lodge Green



fairly easily along the main path up the centre of the green. Noticeably smaller than the honey bees and bumblebees which are also enjoying the red bartsia flowers, the red bartsia bee has pale hair bands on its dark abdomen, a hairy, almost fluffy, face, and slightly swollen feet. Red bartsia bees are solitary mining bees, excavating nests in compacted soil – although nesting has rarely been observed in the UK so try to keep an eye out to try to find out where they are nesting on or near Court Lodge Green. Also worth looking out for is the red bartsia bee's "cuckoo" bee,



The improved management of Court Lodge Green is already having visible impacts on the diversity of the wild-flowers, with more flowers flourishing as dominant vigorous grasses are suppressed by the revised cutting regime and the seeding in places of yellow rattle which parasitises grass roots. One wild flower which has benefited is red bartsia, another semi-parasitic wild flower in the same family as yellow rattle, which also requires slightly disturbed soils and is far more abundant in many areas of Court Lodge Green than in previous years. Consequently the red bartsia bee, a relatively scarce native wild bee, can currently be spotted



the scarce and wasp-like blunthorn nomad bee, which like cuckoos simply lays eggs in the nests of red bartsia bees and other related "blunthorn" bees, letting the host bee collect all the pollen necessary to feed their grubs. It is most likely to be seen nectaring on ragwort or other wild flowers within flying distance of blunthorn bee nesting sites, and can be distinguished from other black-andyellow nomad bees by its black antennae, two yellow spots at the back of the thorax, and bright orange legs.

Tony King, August 2021



Regular updates in Lyminge Newsletter

Red Bartsia and Red Bartisa Bee



Orchids And Ghost Moths Steal The Show At The Parish Bioblitz

Just over 300 different wildlife species were recorded during the Parish Bioblitz over the weekend of the 17th to 19th June, with more to be added as the team of volunteer experts sifts through their additional photos and field notes. Plenty of local residents joined in, some of the younger ones getting remarkably wet and dirty in the process, particularly during the very popular Nailbourne stream survey on Well Field. Full results can be found online on www. irecord.org.uk and searching for Lyminge Bioblitz on the Activities tab.

The warm and still Friday evening was perfect for the moth safari, with over 135 different

moth species being attracted to the lights run in Lyminge from dusk until after midnight. We were joined by the county moth recorder Dave Shenton who kindly identified all these species in double-quick time, before returning on the Saturday to enthusiastically show many of the moths to other participants. On the Saturday we were joined by several members of the Kent Field Club, for whose time and expertise we are very grateful, one of whom recorded a super total of 76 species of plants. Several local people, including members of the Thoughtful Food Group, provided cakes and refreshments, essential for keeping everyone going throughout the day.

Favourite wildlife species spotted included the large and bright pink Elephant Hawk-moths, the appropriately-named Peach Blossom moths, the striking White Ermine moths, the yellow-flowered Goat's Beard plant, elso known as 'Jack-Go-To-Bed-At-Noon', the similarly yellow-flowered Bristly Oxtongue, and of course the agile Pipistrelle bats hawking up and down the margins of the Bumpy Field. All eight of our common bumblebae species were out pollinating the flowers of Court Lodge Green, other day-flying pollinators included the Batman Hoverfly and the Swellen-thighed Flower Beetle, both of which had been featured on the bioblitz programme in the last newsletter.

In Lyminge the highlight of the surveying was the remarkable results of the moth salari. Some of the moths





recorded are quite rare in the UK, including some very striking species such as Red-necked Footman, Olive Crescent, The Festoon, Royal Mantle, Comfrey Ermel and Vine Moth. The most memorable moment though was the display put on by a cloud of white Ghost Moth males, "dancing" or "lekking" at dusk at the top of Court Lodge Green as they tried to impress a smaller number of discerning. yellower, females. These results illustrate the high biodiversity value of Court Lodge Green and surrounding areas.

In Etchinghill at least three species of orchids were recorded, a very exciting result that we hope will lead to conservation management of the orchid areas in collaboration with Folkestone and Hythe District Council.

Rhodes Minnis was, perhaps predictably, the least recorded of our three villages, but none-the-less an intrepid team of two managed to record more bird species than any of the other teams, several butterflies, bees and hoverflies, and one orchid. The Recreation Ground appeared to have a good diversity of wildflowers and grasses so we'll ask some of our local botanists to make a special trip there in due course. It would also be a great site for a future moth safari.

Overall the bioblitz was a great success, we thank the organisers (especially Kate and Dan Bernett), Lyminge Scouts for the use of the Scout Hut, the Kent Field Club, Dave Shenton and the Kent Moth Group, Thoughtful Food Group, and everyone who carticipated. We look forward to doing it again!

For more details please contact: tony.king@lymingeparishcouncil.org.uk



Regular updates in Lyminge Newsletter

Bioblitz 2022 results (>150 moth species in 1 night!)



Moth Trapping

Taxon	Common name	TOTAL	
Total Andrena species	Mining bees	19	
Total Anthophora species	Flower bees	3	
Total Apis species	Honey bee	1	
Total Bombus species	Bumblebees	10	
Total Epeolus species	Variegated cuckoo bees	1	
Total Nomada species	Nomad bees	13	
Total Colletes species	Plasterer bees	2	
Total Hylaeus species	Yellow-face bees	3	
Total Halictus species	End-banded furrow bees	2	
Total Lasioglossum species	Base-banded furrow bees	10	
Total Sphecodes species	Blood bees	3	
Total Anthidium species	Wool carder bee	1	
Total Chelostoma species	Scissor bees	1	
Total Coelioxys species	Sharp-tail bees	2	
Total Heriades species	Carpenter / Resin bees	1	
Total Megachile species	Leafcutter bees	3	
Total Osmia species	Mason bees	3	
Total Melitta species	Blunthorn bees	2	
Total bee species		80	



Ongoing monitoring results submitted to National Recording Schemes through iRecord

80+ bees 50+ wasps & sawflies 65+ hoverflies 500+ moths 27 butterflies 50+ beetles



Managing community green spaces for pollinators



Challenges:

"Cut and Collect" more expensive than basic cuts Timing of cuts important – but contractors don't necessarily have time to cut at ideal time Mower drivers / operators tend to "cut more not less"! Public perceptions – can't win? ("Too neat and tidy" vs "too messy"). Can't please everyone all of the time – but don't need to? Parish councillors are all volunteers – lack of "spare" time...

Acknowledgements

Former Cllr Owen Standen Local professional ecologist Dan Bennett Lyminge Climate Action community group and volunteers

> Thank you! Tony.King@lymingeparishcouncil.org.uk