

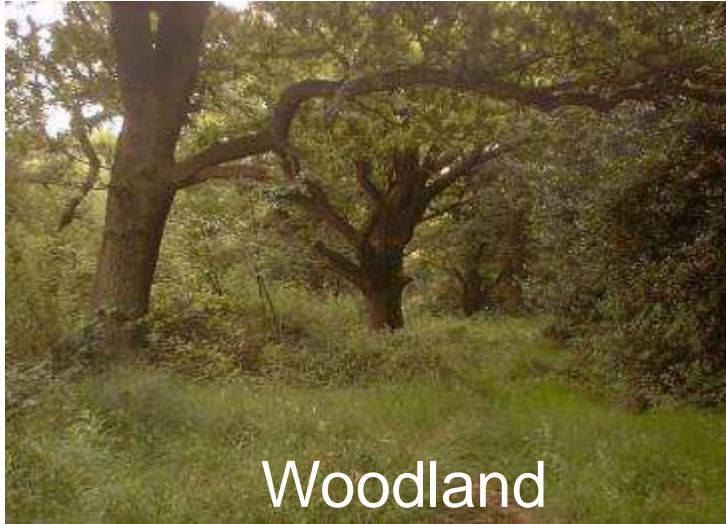


# Brownfield- Setting the Scene

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# Biodiverse wildlife rich habitats



Woodland



Rivers



Hay meadow



Heathland

# Biodiverse wildlife rich habitats???



Old colliery site



Urban river bank



Abandoned factory  
site



Disused quarry

# What is a Brownfield site?

- Brownfields are any site that has been altered by human activity and are currently not fully in use.
- They tend to be concentrated in urban and former industrial landscapes but also include quarries, spoil heaps, old railway lines and disused airfields in more rural settings.
- Every brownfield site is different as a result of the previous use of the site and local conditions such as climate, geographical location, substrate, hydrology and contamination.





# Disused power station



# Abandoned oil refinery



# Disused chalk pit





# Disused brick works





# Slag heaps





# Steel works



# Sand extraction at a steel works





# Chemical factory





# Disused rail way lines



# Brownfields: a paradise for invertebrates!



Shrill carder bee



Saltmarsh short-spur



Streaked bombardier

12-15% of UK rare & scarce invertebrates found on brownfield sites<sup>(1)</sup>- under estimation!

194 invertebrate species of conservation importance including 50 red data book & 131 nationally scarce species. 50% of rare solitary bees & wasps 35% of rare ground beetles<sup>(2)</sup>

Supports a suite of UKBAP priority species, 16 in the Thames Gateway alone! 74% of the national fauna of bees and wasps

Brownfields are some of the UK's richest invertebrate sites on a par with ancient woodland

Eg. Canvey Wick was designated a SSSI  
'a little brownfield rainforest'

(1) Gibson 1998 (2) Bodsworth *et al.*, 2005



Dingy skipper

# Why are brownfields so species rich?



Small blue butterfly



Green tiger beetle



Coastal leaf cutter bee

Complex & structurally diverse habitats

- Nutrient poor, stressed, disturbed
- Bare ground- hot microclimate
- Florally diverse with a rich nectar source
- Variety of successional stages

Early successional habitat associated with many of rare species

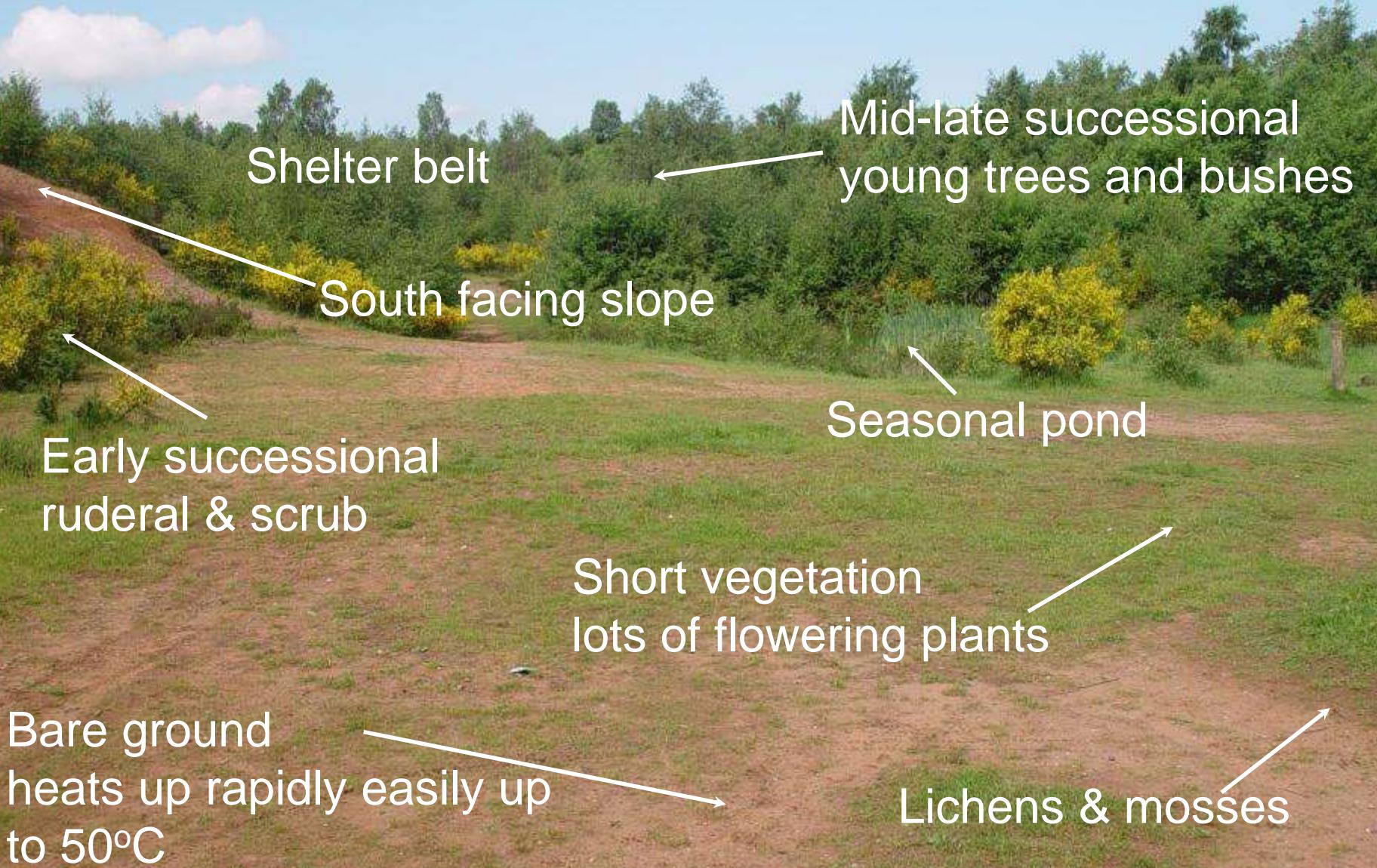
Brownfields mimic natural habitat features found in grassland, heathland, coastal habitats and scrub.

Natural habitats declining and fragmented

Often found in clusters- ‘stepping stones’ providing habitat linkages facilitating the movement and mixing of individuals in a less favourable urban setting

Support species on the edge of their range

# Diverse mosaic of invertebrate habitats micro-habitats and micro-climates



# Flower power

super abundance of nectar rich native & non native species



Everlasting sweetpea



Red clover



Wild carrot



Horehound



Goat rue



Viper's bugloss



Purple toadflax



Ribbed mellilot



Bird's foot trefoil



Pyramidal orchid



Sallow



Bramble

# Final thought.....

## Not all brownfield land is the same



Prime development land?

Wildlife haven and  
conservation resource?





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