



#WildPlantDisease spotter sheet



This sheet introduces some of the most common and distinctive pathogens and parasites that can be found on wild plants in the UK in Spring and early Summer. There are many others to be seen! You can share your finds with #WildPlantDisease.

Groundsel rust

Two species of rust fungus are now found on Groundsel (*Senecio vulgaris*) in the UK, *Coleosporium tussilaginis* and *Puccinia lagenophorae*. Look out for the orange spore-filled “cluster cups” (aecia) on leaves and stems. Very common and easy to find in waste ground, roadsides and car parks!



Brassica white rust

Albugo candida on Brassicaceae including Charlock, Shepherd's-purse and Honesty (*Sinapis arvensis*, *Capsella bursa-pastoris* and *Lunaria annua*). Forms a thick white coating on leaves, stems and inflorescences, often causing distorted growth. Unlike other rusts, which are basidiomycete fungi (related to mushrooms), white rust is an oomycete, more closely related to algae.



Robin's pincushion gall

Diplolepis rosae on Dog-rose (*Rosa canina*). This striking red gall is formed when a small solitary wasp lays its eggs in a leaf bud, and the plant is manipulated into forming structures to house and feed the larvae. In winter and spring, you can find the brown remains of last year's galls.



Campion anther smut

Microbotryum silenes-dioicae (*M. violaceum sensu lato*) on Red/White/pink Campion (*Silene dioica* / *S. latifolia* / *S. x hampeana*). Asymptomatic (possibly slight stunting) until the plant flowers, when the usually white centres of the flowers are filled with chocolate-brown spores produced by enlarged anthers (even in female plants which, if uninfected, would not produce stamens at all!) to be spread by insect pollinators.



Deadnettle powdery mildew

Neovrysiphe galeopsidis on White/Red Dead-nettle, Hemp-nettles and Yellow Archangel (*Lamium album* / *purpureum*, *Galeopsis spp.* and *Lamiastrum galeobdolon*). Look for white fluffy hyphae producing small powdery clonal spores (conidia) on both sides of the leaves, starting as small patches and spreading to cover the leaf area. Dark spots within the white fungus are the sexual fruiting bodies (cleistothecia).



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Chestnut bleeding canker

Pseudomonas syringae pv. *aesculi* on Horse-chestnut (*Aesculus hippocastanum*). This is a bacterial infection in the bark of the tree. It causes the tree trunk to “bleed” thick, dark liquid. In severe cases, vessels supplying the crown of the tree are damaged, leading to dieback. Less commonly, similar symptoms can be caused by the oomycetes *Phytophthora cactorum* or *Phytophthora citricola*.



Bluebell rust

Uromyces muscari on Bluebell, Spanish Bluebell and hybrid Bluebell (*Hyacinthoides non-scripta* / *H. hispanica* / *H. x massartiana*). Look for yellow-brown oval lesions on Bluebell leaves, with rings of black spore-filled pustules (telia) underneath.



Holly leaf miner

Phytomyza ilicis on Holly (*Ilex aquifolium*). Pale patches and trails are caused by a small fly larva feeding on the inside of the leaf. Different insects feed inside the leaves of different plants: for example, the Horse Chestnut leaf miner is a moth caterpillar, *Cameraria ohridella*.



Hawthorn leaf blotch

Monilinia johnsonii on Hawthorn (*Crataegus monogyna*). Initially causes dry brown patches on the leaves, then whole leaves die off and can be seen hanging down from the branches, often covered in silvery fungal mycelium. If you're lucky you might also find “haw goblets”, cup-shaped fruiting bodies (apothecia) growing from old fallen berries.



Bramble rust

Phragmidium violaceum on Bramble (*Rubus fruticosus* agg.). Look out for purple-red spots on the tops of leaves, then look underneath to see spores from different stages of the rust fungus life-cycle: orange-yellow uredinia, and later in the year the black overwintering telia.

