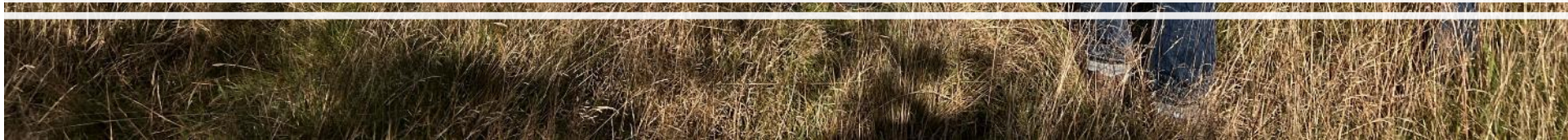
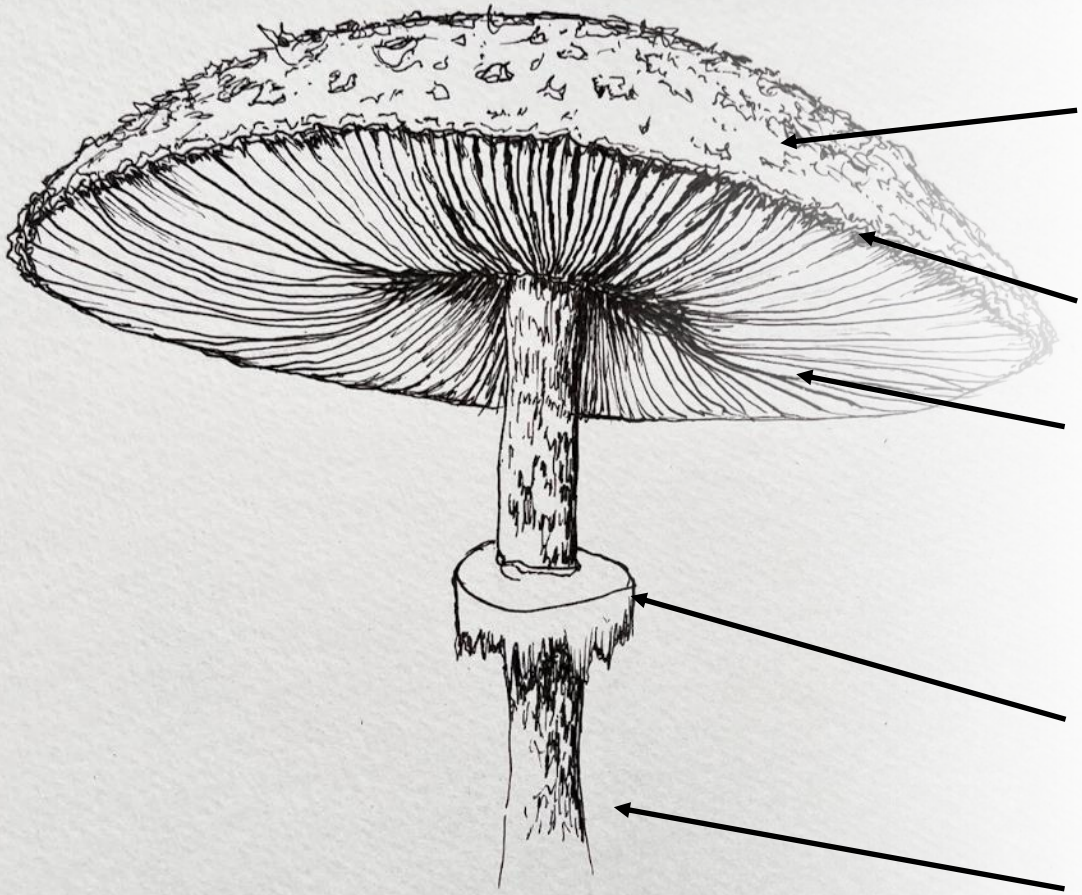
Fungi walk highlights - Oct 2023 - with Brian Spooner



Identifying parts of a toadstool (the fungi fruiting body)



Cap – colour, shape, size, scaliness, and texture help ID

Margin – may be smooth or grooved

Gills attachment to stem, spacing and colour helps ID (see the next page). They bear the **spores,** the colour of which helps ID the toadstool

Ring. The remains of a partial veil initially attached to the margin to protect the gills as it grows

Stem – shape, size & colour help ID

Hidden beneath the toadstool is the main part of the fungus, which is there all the year around when the fruiting body has gone. This is mycelium, made up of a network of hyphae (tiny thread-like filaments).

Common Ink Cap – *Coprinopsis atramentaria*

- Toadstool type structure
- Upper part of fruiting body is white, beige and egg like initially
- Gills mature from whitish to grey and black as spores develop
- Black spores are shed in inky fluid
- It grows in tufts, sometimes in woody places, but often in grassland
- If eaten with alcohol will make you very sick

Beefsteak – *Fistulina hepatica*

- It looks meaty and when young and fresh can drip red fluid which looks like blood.
- More often half-way up the tree
- The spores are formed in individual tubes which easily separate and are best seen in vertical section.
- Feeds on the heart wood of the tree. Such fungi eventually cause the tree to become hollow, creating an important habitat for many other species

Spindle Shank –*Gymnopus fusipes*

- Coloured gills of reddish brown
- Will have white spores
- Grows in large clumps. Stems are strongly tapered to the base.
- Always on the roots of hardwood trees, notably beech and oaks. If the tree is healthy doesn't seem to cause it harm

Tawny Funnel Cap – *Lepista flaccida*

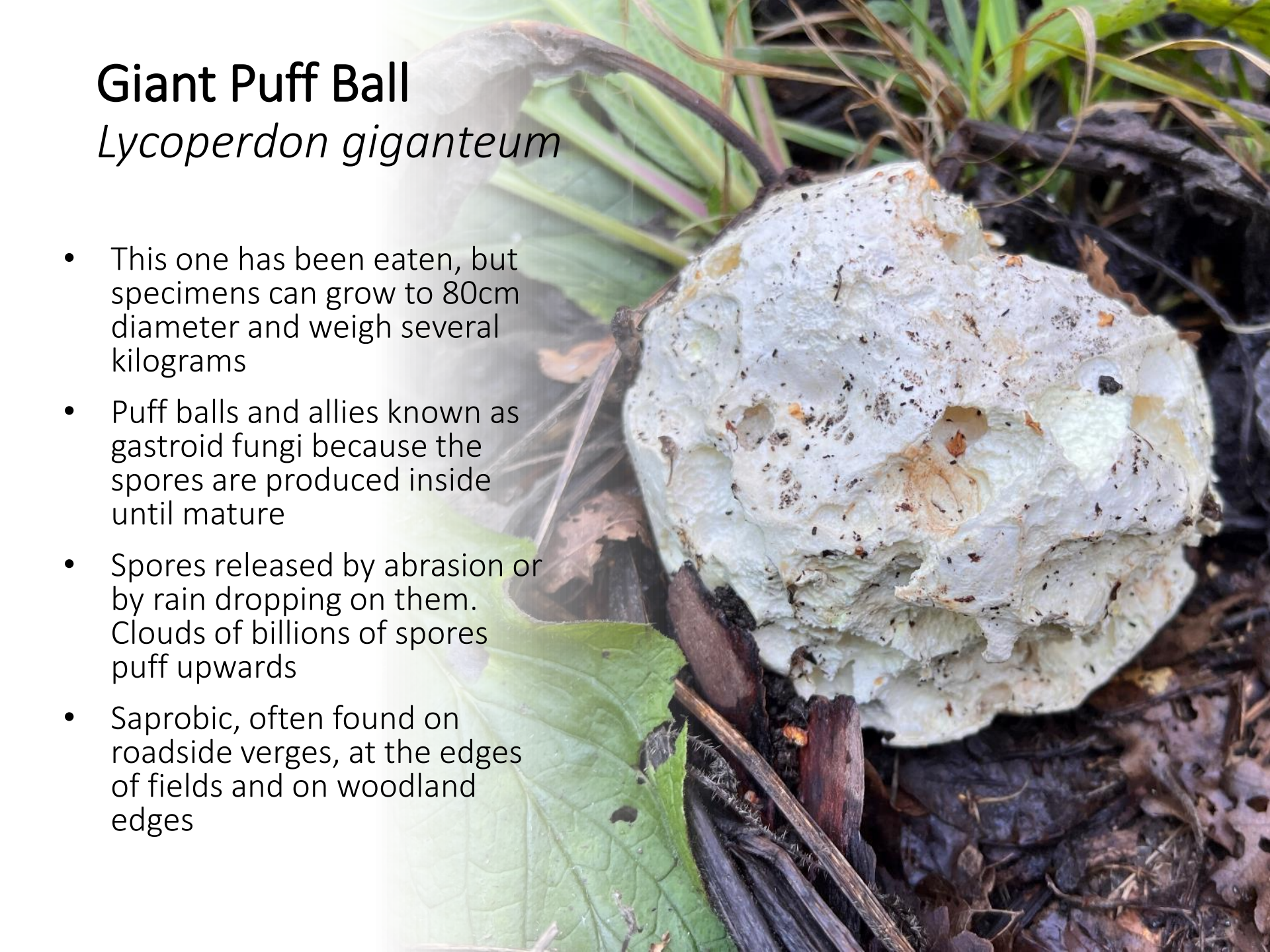
- The gills run down the stem making a funnel shape
- Tawny-coloured cap with in-rolled margin
- Spores are cream
- Fibrous stem
- Quite common in woodlands and amongst woody litter

Genus *Psathyrella*

- Slender, delicate toadstools
- *Psathyrella* is a fairly large genus with lots of different species
- Dark-coloured spores
- Saprotrophic - lives off dead organic matter in the ground
- NB Caps often hygrophanous, becoming much paler as the fungus loses water.

Giant Puff Ball

Lycoperdon giganteum



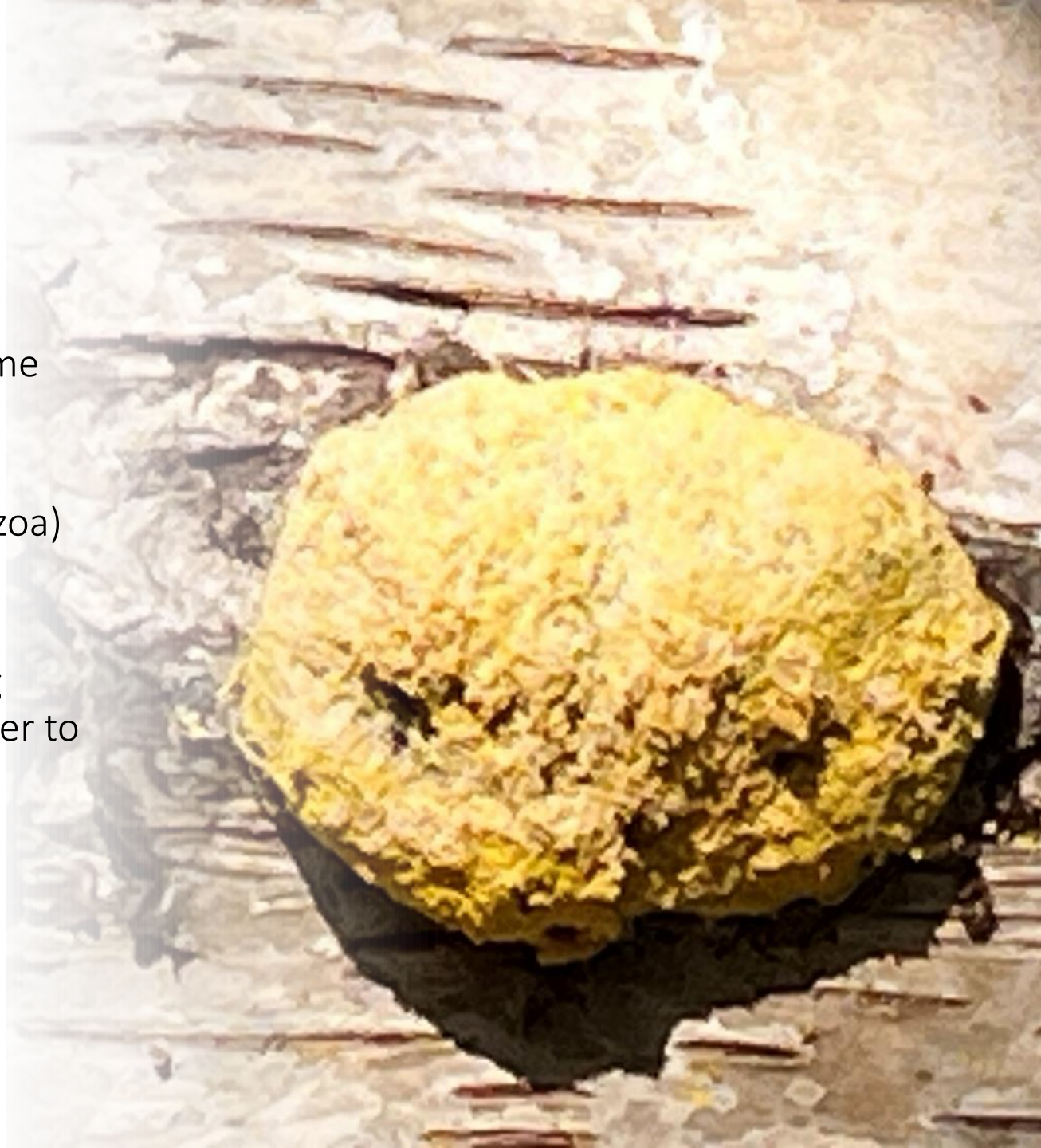
- This one has been eaten, but specimens can grow to 80cm diameter and weigh several kilograms
- Puff balls and allies known as gastroid fungi because the spores are produced inside until mature
- Spores released by abrasion or by rain dropping on them. Clouds of billions of spores puff upwards
- Saprobic, often found on roadside verges, at the edges of fields and on woodland edges

Russet Toughshanks - *Gymnopus dryophilus*

- Common, and found in woodland or parkland settings. Can occur in both broadleaf woods and conifer plantations,
- Tawny-yellow or tan cap of 2 to 5 cm; has crowded, whitish gills.
- partial veil absent, so no ring on stem
- It has white spore print.

Flowers of Tan - *Fuligo septica*

- This is a Plasmodial Slime Mold
- Fungus-like but in a different kingdom (Protozoa) and closer to *Amoeba*, a single celled organism.
- Tiny sporangia (fruiting bodies) can group together to form large structures on decaying wood
- Produce black spores



The Deceiver – *Laccaria laccata*

- Mycorrhizal with birches and oaks. Such fungi form a partnership with tree roots providing minerals in return for sugars
- Tough fibrous stem
- Called a deceiver because it changes drastically as it ages
- Very common in woodlands, often in large numbers

Poison Pie – *Hebeloma* genus

- Pale clay-brown cap
- Brown spores
- Gills not strongly attached
- White stem
- Smells of radishes
- One of many similar species, mycorrhizal in woodlands and mostly somewhat poisonous

Tar Spot – *Rhytisma acerinum*

- Tar spot on sycamore leaves – not going to kill the tree just disfigures it
- This belongs to the very large group of fungi known as Ascomycetes which produce their sexual spores inside sac-like cells termed asci.
- Asexually produced spores in tihs stage of the fungus
- Leaves drop and the fungus produces the ascus phase in spring – attractive to look at
- More common now as pollution levels have declined

Turkey tail – *Trametes versicolor*

- A multi-coloured, tough bracket fungus in mature (top) and younger(below) phase stages, very common on rotten stumps and logs
- Fruitbodies usually a semi-circle shape but sometimes a complete rosette
- Found on deciduous wood.
- Simple white spores

Ganoderma adspersum
Also known as Southern Bracket

- A woody, perennial bracket fungus producing new layers of tubes each year. The underside is whitish and upper side a dark, brown crust. Individual brackets can live for 10 – 15 years.
- Produces billions of rusty- brown spores which create discoloration around it.
- Found on living and dead trunks. Usually a heart-wood rotter, but may sometimes reach the roots and eventually cause the tree to become unstable

Hairy curtain crust
Stereum hirsutum

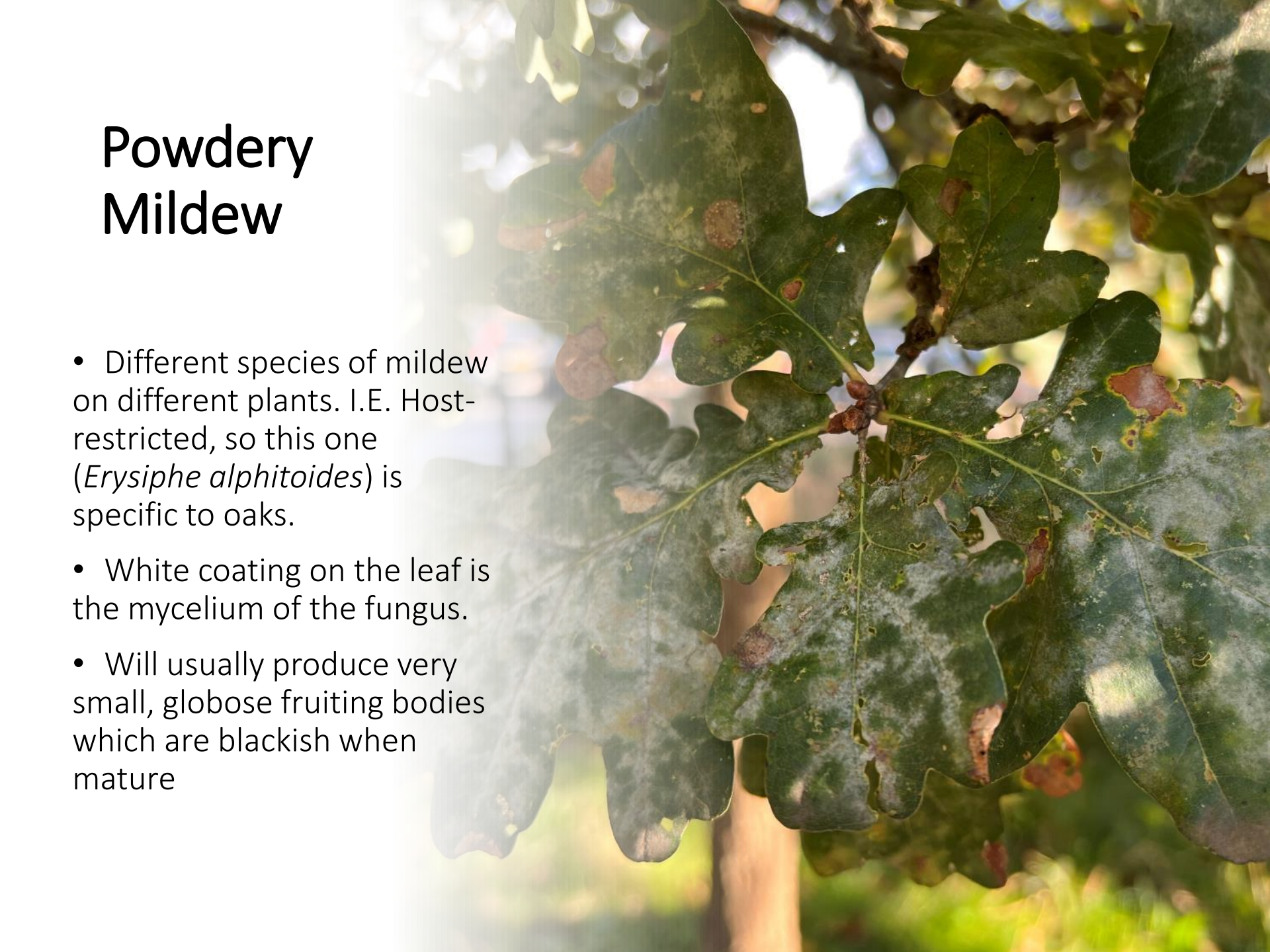
- Very common. Normally on fallen oak branches or tree stumps. Forms small bracket-like structures which are yellowish-orange when fresh, sometimes in tiers.
- The upper surface is roughly hairy and paler
- The lower surface is spore bearing.

Parasols - *Macrolepiota procera*

- Large toadstool is widespread in Bushy Park with a wide cap with scales. Can look very egg like when emerging.
- Tall, slender stem with snake-like bands, and with a large, movable ring, the remains of the partial veil.
- Gills are white, as are the spores.
- Grows especially well in grasslands

Powdery Mildew

- Different species of mildew on different plants. I.E. Host-restricted, so this one (*Erysiphe alphitoides*) is specific to oaks.
- White coating on the leaf is the mycelium of the fungus.
- Will usually produce very small, globose fruiting bodies which are blackish when mature



Fairy Ring toadstools– Marasmius oreades

- Forms rings of toadstools in grass.
- Small tan, bell-shaped cap on a tough fibrous stem
- Gills are well spaced.
- The mycelium grows out from the original spore which was in the centre of the ring. The fruiting bodies (toadstools) emerge at the edge of the ring. This ring can grow over centuries. Creates a dead ring of grass on lawns.
- They are saprotrophs feeding on the organic matter and are essential to recycling.