

## Key to lichenicolous fungi known on *Xanthoria parietina* in the UK.

Spring 2020

Species in bold have a species account available in this volume.

***Marchandiomyces corallinus*** and ***Taeniolina scripta*** have also been recorded on *Xanthoria parietina* in the UK.

1. Large areas of damage associated with cobweb-like fungal growth ..... ***Athelia arachnoidea***
1. Pink, coral or orange ‘blobs’ on, or imbedded in, the surface of the host thallus or fruit ..... 2
  1. Tiny dark bristles, dark hyphal threads or sooty covering present ..... 3
    1. Galls present ..... 4
      1. Black dots present ..... 6
  2. Shocking pink irregular blobs that appear to dissolve in water ..... ***Illosporiopsis christensenii***
  2. Orange, or coral, slightly irregularly blobs (bulbils) ..... ***Erythricium aurantiacum***
  2. Pink spherical structures covered in white hairs and with a red spot ..... ***Nectriopsis physciicola***
  2. Orangey spots imbedded in the surface of the thallus or fruit ..... ***Pronectria xanthoriae***
  3. Black, sooty coating mainly on the top of the host fruits ..... ***Xanthoriicola physciae***
  3. Dark bristles on host fruits (thallus of host often bleached) ..... ***Cladosporium licheniphilum***
  3. Clusters of dark bristles growing from black dots in or on host thallus or fruit ..... ***Pyrenophaeta xanthoriae***
  3. Fuzzy brown coating on thallus and fruits of host ..... ***Gonatophragmium lichenophilum***
  4. Galls yellow and flat, often looking like a three-cornered hat ..... ***Telogalla olivieri***
  4. Galls mounded with immersed black dots ..... 5
    5. Spores with two cells ..... ***Zwackhiomyces coepulonus***
    5. Ascospores single celled ..... ***Telogalla olivieri***

6. Back dots contain asci .....	7
7. Asci arranged in a layer on the surface of a fruiting body – apothecia .....	8
8. Apothecia very irregular, often with more than one cavity when seen in cross-section .....	
..... <i>Opegrapha physciaria</i>	
8. Apothecia without a margin. Ascus-bearing tissue on sides as well as top of apothecia .....	9
9. Apothecia in large clusters .....	<i>Arthonia parietinaria</i>
9. Apothecia in groups of 5 or fewer .....	<i>Arthonia molendoi</i>
7. Asci enclosed in a fruiting body – perithecia .....	10
10. Perithecia pale-walled in cross-section .....	<i>Telogalla olivieri</i>
10. Perithecium dark-walled in cross-section .....	11
11. Ascospores colourless .....	<i>Zwackhiomyces coepulonus</i>
11. Ascospores brown .....	12
12. Infected areas stained red. Ascospores with warts .....	
..... <i>Didymocyrtis slaptoniensis</i>	
12. Infected areas bleached. Ascospores with smooth walls .....	
..... <i>Sphaerellothecium parietinarium</i>	
6. Black dots contain conidia. No asci present .....	13
13. Black dots with dark bristles .....	<i>Pyrenopeziza xanthoriae</i>
13. Black dots without dark bristles .....	14
14. Conidia brown .....	<i>Lichenoconium xanthoriae</i>
14. Conidia colourless .....	15
15. Conidia extremely long and narrow, often curved .....	<i>Epithamnolia xanthoriae</i>
15. Conidia rod-shaped .....	<i>Opegrapha physciari</i>
15. Conidia ellipsoid .....	16
16. Conidia mainly 4.6-6.4 x 2.5-3.1 µm .....	<i>Didymocyrtis slaptoniensis</i>
Note: There appears to be a second form of <i>Didymocyrtis</i> on <i>Xanthoria parietina</i> in the UK. This species is often recorded as <i>Didymocyrtis epiphyscia s. lat.</i> It is only known in its conidial form. Conidia are less than 6.5 x 3.0 µm. Spore sizes should be given when making records.	
16. Conidia ellipsoid. Mainly 2.5-4 x 1-1.5 µm .....	
..... Pycnidia of the host: <i>Xanthoria parietina</i>	