

KEY TO SPECIES OF THE GENUS *MELIOLINA*

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Abstract

The genus *Meliolina* of the family Meliolinaceae represents 38 species and has very narrow species concept. The dichotomous key has been provided here to facilitate their identification.

Key words

Meliolina, *Meliolinaceae*, *dichotomous key*, *fungi*

Introduction

The genus *Meliolina* was proposed by Sydow and Sydow (1914) to accommodate those fungi similar to *Meliola* but have distantly septate hyphae, lack characteristic appressoria and have dichotomously branched phialophores. These fungi can be easily identified in the field by their velvet carbonaceous woolly colonies mostly on the lower surface of leaves. Hughes (1993) revised the genus and gave an account of 38 species but the work lacks key for rapid identification of the species. Hence, a dichotomous key has been provided here. *Meliolina queenslandica* Hughes and *M. shepherdii* Hansf. have been repeated here twice because of their overlapping characters with other taxa.

Key to species of *Meliolina*

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|---|-------------------------------|
| 1. On Melastomataceae | <i>memecylonis</i> |
| 1A. On Myrtaceae | 2 |
| 2. Pale bands in ascospores absent | <i>novae-caledoniae</i> |
| 2A. Pale bands in ascospores present | 3 |
| 3. Pale bands in ascospores are two | 4 |
| 3A. Pale bands in ascospores are more | 6 |
| 4. Ascospores 45-65µm long | 5 |
| 4A. Ascospores 60-80 (-90)µm long | <i>shepherdii</i> |
| 5. Ascospores 12-20µm broad | <i>lanceolata</i> |
| 5A. Ascospores 20-30µm broad | <i>demoulinii</i> |
| 6. Pale bands in ascospores are four (including inconspicuous bands in the central cells) | 7 |
| 6A. Pale bands in ascospores are eight | 36 |
| 7. Pale bands in ascospores are only four in the distal cells | 8 |
| 7A. Pale band in ascospores are four with one or two inconspicuous bands in the central cells | 27 |
| 8. Ascospores 36-50µm long | 9 |
| 8A. Ascospores more than 50µm long | 12 |
| 9. Terminal branches of phialophores are some strongly curved or coiled | <i>octospora</i> |
| 9A. Terminal branches of phialophores are straight only | 10 |
| 10. On <i>Tristania</i> from Australia | <i>baileyi</i> |
| 10A. On other hosts | 11 |
| 11. On <i>Syzygium</i> from Philippines | <i>luzonensis</i> |
| 11A. On <i>Leptospermum</i> from Australia | <i>queenslandica</i> |
| 12. Ascospores 45-65µm long | 13 |
| 12A. Ascospores 60-80 (-90)µm long | 21 |
| 13. Phialides unilaterally thick-walled | <i>africana</i> |
| 13A. Phialides uniformly thick-walled | 14 |
| 14. Ascospores (12-) 15-20 (-22.5)µm broad | 15 |
| 14A. Ascospores (17-) 20-29µm broad | 23 |

15. On *Melaleuca* from Papua New Guinea
..... *melaleuca*
- 15A. On other hosts 16
16. On *Metrosideros* from Samoa Islands
..... *samoensis*
- 16A. On other hosts 17
17. Ascospores cylindrical *neesiana*
- 17A. Ascospores ellipsoidal 18
18. Stomatopodia rare or absent *australiensis*
- 18A. Stomatopodia few to numerous 19
19. Colonies 3-6mm in diameter *hainanensis*
- 19A. Colonies more wider 20
20. Known from India *gorakhpurensis*
- 20A. Known from Papua New Guinea *shawiae*
21. Hyphal cells 20-45µm long
..... *quinqueseptata*
- 21A. Hyphal cells 45-110µm long 22
22. Colonies rounded with more or less entire margin
..... *arborescens*
- 22A. Colonies with irregularly or rapidly lobed margin ...
..... *radians*
23. End cells of ascospores subpapillate
..... *subramanianii*
- 23A. End cells other wise 24
24. Colonies 2-6mm wide *khasiae*
- 24A. Colonies wider 25
25. Colonies 6-10mm wide 26
- 25A. Colonies 10-25mm wide *yatesii*
26. Hyphal cells 20-45µm long *ryukyuensis*
- 26A. Hyphal cells 45-110µm long *shepherdii*
27. On *Metrosideros* 28
- 27A. On other hosts 31
28. Ascospores 45-65µm long 29
- 28A. Ascospores 60-80 (-90)µm long 30
29. Stomatopodia rare or absent *haplochaeta*
- 29A. Stomatopodia rare to frequent
..... *novae-zealandicae*
30. Ascospores ellipsoidal *hawaiiensis*
- 30A. Ascospores cylindrical *metrosideri*
31. On *Leptospermum* 32
- 31A. On other hosts 34
32. Ascospores 36-50µm long 33
- 32A. Ascospores 45-65µm long *leptospermi*
33. Hyphal cells 20-45µm long *sarawacensis*
- 33A. Hyphal cells 45-110µm long
..... *queenslandica*
34. Colonies 2-6mm in diameter *cladotricha*
- 34A. Colonies 10-25mm in diameter 35
35. On *Syzygium* *burmanica*
- 35A. On *Lophostemon* *lophostemonis*
36. Ascospores 60-80 (-90)µm long *pulcherrima*
- 36A. Ascospores smaller 37
37. Stomatopodia rare or absent 38
- 37A. Stomatopodia scanty to abundant 39
38. End cells of ascospores rounded *degeneri*
- 38A. End cells of ascospores subconical
..... *stevensii*
39. Ascospores (12-) 15-20 (-22.5)µm broad *cookii*
- 39A. Ascospores (17-) 20-29µm broad
..... *sydowiana*

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