**Appendix S3**. Members of the rickenelloid clade (Redhead et al., 2002), *Rickenella* clade (Larsson et al. 2006; Miettinen and Larsson, 2010), or “*Rickenella* family” (Larsson et al., 2007) suggested by various works and results presented here.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Species1 | Habit / Ecology | Redhead et al. (2002) | Larsson et al. (2006) | Larsson et al. (2007) | Miettinen and Larsson (2010) | This study |
| *Alloclavaria purpurea* | Clavarioid / terricolous |  |  |  |  | ✓ |
| *Atheloderma mirabile* | Corticioid / lignicolous |  | ✓ | ✓ |  | ✓ |
| *Blasiphalia pseudogrisella* | Agaricoid / bryophilous | ✓ | ✓ |  |  | ✓ |
| *Cantharellopsis prescotii* | Agaricoid / bryophilous | ✓ | ✓ |  |  | ✓ |
| *Contumyces rosellus* | Agaricoid / bryophilous | ✓ | ✓ |  | ✓ | ✓ |
| *Contumyces vesuvianus* | Agaricoid / bryophilous |  |  |  |  | ✓ |
| *Cotylidia aurantiaca* | Stereoid / bryophilous |  | ✓ |  |  |  |
| *Cotylidia aurantiaca* var. *alba* | Stereoid / bryophilous |  | ✓ |  |  | ✓ |
| *Cotylidia pannosa* | Stereoid / terricolous |  |  |  |  | ✓ |
| *Cotylidia* sp. | Stereoid / terricolous |  | ✓ |  |  | ✓ |
| *Globulicium hiemale* | Corticioid / lignicolous |  | ✓ | ✓ | ✓ | ✓ |
| *Hyphoderma capitatum* | Corticioid / lignicolous |  | ✓ |  | ✓ |  |
| “*Hyphoderma orphanellum*” | Corticioid / lignicolous |  | ✓ |  | ✓ | ✓ |
| *Hyphoderma sibiricum* | Corticioid / lignicolous |  | ✓ |  |  |  |
| *Leifia flabelliradiata* | Corticioid / lignicolous |  | ✓ |  |  | ✓ |
| *Loreleia marchantieae* | Agaricoid / bryophilous | ✓ | ✓ |  |  | ✓ |
| *Muscinupta laevis* (=*Cyphellosterum leave*) | Stereoid / bryophilous |  | ✓ | ✓ |  | ✓ |
| *Mycoacia kurilensis* | Corticioid / lignicolous |  |  | ✓ |  |  |
| *Mycoacia pinicola* | Corticioid / lignicolous |  | ✓ |  | ✓ |  |
| *Odonticium romellii* | Corticioid / lignicolous |  | ✓ |  | ✓ | ✓ |
| *Peniophorella echinocystis* (=*Hyphoderma* p.p.) | Corticioid / lignicolous |  | ✓ |  |  | ✓ |
| *Peniophorella guttulifera* (=*Hyphoderma* p.p.) | Corticioid / lignicolous |  | ✓ |  |  | ✓ |
| *Peniophorella praetermissa* (=*Hyphoderma* p.p.) | Corticioid / lignicolous |  | ✓ |  |  | ✓ |
| *Peniophorella pubera* (=*Hyphoderma* p.p.) | Corticioid / lignicolous |  | ✓ |  |  | ✓ |
| *Peniophorella tsugae* | Corticioid / lignicolous |  |  |  | ✓ |  |
| *Phlebia georgica* | Corticioid / lignicolous |  | ✓ | ✓ | ✓ |  |
| *Repetobasidium conicum* | Corticioid / lignicolous |  | ✓ |  | ✓ |  |
| *Repetobasidium mirificum* | Corticioid / lignicolous |  | ✓ |  |  |  |
| *Resinicium bicolor* | Corticioid / lignicolous |  | ✓ |  | ✓ |  |
| *Resinicium chiricahuaensis* | Corticioid / lignicolous |  | ✓ |  | ✓ |  |
| *Resinicium friabile* | Corticioid / lignicolous |  | ✓ |  | ✓ |  |
| *Resinicium furfuraceum* | Corticioid / lignicolous |  | ✓ | ✓ | ✓ |  |
| *Resinicium saccharicola* | Corticioid / lignicolous |  | ✓ |  | ✓ |  |
| *Resinicium meridionalis* | Corticioid / lignicolous |  | ✓ |  | ✓ |  |
| *Rickenella fibula* | Agaricoid / bryophilous |  | ✓ | ✓ |  | ✓ |
| *Rickenella mellea* | Agaricoid / bryophilous | ✓ | ✓ |  | ✓ | ✓ |
| *Rickenella minuta* | Agaricoid / bryophilous |  |  |  |  | ✓ |
| *Rickenella schwartzii* | Agaricoid / bryophilous |  |  |  |  | ✓ |
| *Sidera lenis* | Corticioid / lignicolous |  |  |  | ✓ |  |
| *Sidera lowei* | Corticioid / lignicolous |  |  |  | ✓ |  |
| *Sidera lunata* (=*Athelopsis lunata*) | Corticioid / lignicolous |  | ✓ |  | ✓ |  |
| *Sidera vulgaris* | Corticioid / lignicolous |  |  |  | ✓ |  |
| *Skvortzovia furfurella* | Corticioid / lignicolous |  | ✓ | ✓ | ✓ | ✓ |
| *Sphagomphalia brevibasidiata* (=*Gyroflexus brevibasidiatus*) | Agaricoid / bryophilous | ✓ | ✓ |  |  | ✓ |

1 Other taxa hypothesized to occur in the *Rickenella* clade include *Kurtia argillacea* based on Kolařík and Vohník (2018), *Ginnisa viticola* and *Tsugacorticium kenaicum* per Nakasone and Burdsall (2012), and *Cotylidia undulata* per Sjökvist et al. (2012). *Loreleia postii* is reported here as a member of the Agaricales.