**S3 Table.** **List of OTUs with hits for fungi (total for DNA and active for RNA data).** The list includes closest NCBI database match and respective % identity and accession number and maximum % contribution of each OTU, based on the number of reads, on leaf disks submerged in Oliveira Stream and Boss Brook. \*OTUs with close hits with aquatic hyphomycete sequences.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|   |   |   | Oliveira Stream |   | Boss Brook |   |
| Closest match GenBank (NCBI) | %ID | Accession nº | Total | Active | Total | Active |
| *Articulospora tetracladia* strain CCM F-14298\* | 99 | EU998923 | 84.3 | 57.0 | 72.5 | 78.5 |
| *Articulospora tetracladia* strain CCM F-14299\* | 95 | KP234360 | 10.1 | 0.7 | 29.7 | 24.6 |
| *Varicosporium elodeae* strain WA0000019152\* | 98 | JX981463 | <0.1 | 1.2 | 10.9 | 20.9 |
| *Articulospora tetracladia* strain CCM F-14298\* | 99 | EU998923 | 0.2 | <0.1 | 5.1 | 5.7 |
| *Flagellospora saccata* strain CCM F-39994\* | 96 | KC834053 | 16.4 | 1.2 | 7.0 | 2.1 |
| *Lunulospora curvula* isolate UMB-499.09\* | 99 | JX089527 | 3.9 | 22.7 |   | <0.1 |
| Basidiomycete sp. RT00050 | 99 | EU819529 | 5.0 | 35.9 |   | <0.1 |
| *Articulospora tetracladia* strain CCM F-10113\*  | 99 | KP234360 | 0.1 | 4.1 | 1.6 | 4.8 |
| *Alternaria alternata* strain BS14 | 100 | KP985749 | 8.9 | 16.7 | 0.9 | 0.8 |
| Uncultured fungus clone Singleton\_(137-1123\_0552) | 99 |  FJ778362 | 0.2 | <0.1 | 0.6 | 2.7 |
| *Articulospora tetracladia* strain CCM F-10113\* | 94 | KP234360 | 9.9 | 12.1 | 0.5 | 0.4 |
| Helotiales sp. 859 | 99 | GU934595 |   | 0.1 | 4.1 | 5.0 |
| Uncultured Ascomycota clone 476  | 95 | HM240001 | 14.2 | 11.8 | 0.1 | <0.1 |
| Helotiales sp. 1 PRJ-2011 | 90 | JN225950 | 45.7 | 9.3 | <0.1 | <0.1 |
| *Articulospora tetracladia* strain CCM F-10113\* | 97 | KP234360 | 0.4 | 0.5 | 0.7 | 0.6 |
| Uncultured fungus clone 109A76754 | 100 | JX388477 | 3.9 | 1.8 | 1.1 | 1.4 |
| *Clavariopsis aquatica* isolate UMB-019.99\* | 99 | GQ411316 | 0.8 | 10.9 | <0.1 | <0.1 |
| *Filosporella cf. annelidica* CCM F-11702\* | 97 | KC834044 | 0.5 | 0.1 | 0.6 | 0.6 |
| *Articulospora tetracladia* strain CCM F-10113\*  | 94 | KP234360 | 0.2 | 0.0 | 0.6 | 0.7 |
| Uncultured fungus clone MOTU\_3160\_GOKCVWY06GWYX5 | 99 | JN905693 | 3.7 | 8.5 | <0.1 | <0.1 |
| *Flagellospora penicillioides* isolate UMB-304.05\* | 99 | GQ411325 | 1.5 | 4.5 |   |   |
| *Flagellospora curvula* strain CB-M13\* | 97 | KC834045 | 0.2 | <0.1 | 0.4 | 0.4 |
| *Articulospora tetracladia* strain CCM F-10113\* | 95 | KP234360 | <0.1 | <0.1 | 0.8 | 0.6 |
| *Leptosphaerulina chartarum* genomic DNA | 99 | LK936369 | 4.0 | 2.6 | <0.1 | 0.2 |
| *Vibrissea filisporia* 18S ribosomal RNA gene | 97 | JX415338 | 0.5 | 0.1 | 0.8 | 0.8 |
| *Dimorphospora foliicola* isolate UMB-031.01\* | 99 | GQ411311 | 6.1 | 0.8 | 0.2 | <0.1 |
| *Articulospora tetracladia* strain CCM F-10113\* | 96 | KP234360 |   | <0.1 | 0.1 | 0.4 |
| Uncultured fungus clone 035A14187 | 97 | JX368617 | 1.0 | 1.2 | 0.1 | 0.1 |
| *Paraphaeosphaeria michotii* strain MFLUCC-13-0349 | 100 | KJ939279 | 4.7 | 0.3 | <0.1 | <0.1 |
| Uncultured fungus clone SG061\_D07 | 96 | KP889636 |   | <0.1 | 0.4 | 0.1 |
| *Articulospora tetracladia* strain CCM F-10113\* | 96 | KP234360 | 1.1 | 1.3 |   |   |
| Uncultured Erysiphaceae | 99 | DQ066421 |   |   | 0.7 |   |
| *Articulospora tetracladia* strain CCM F-10113\* | 95 | KP234360 | 0.6 | 1.8 |   |   |
| *Flagellospora saccata* strain CCM F-39994\* | 93 | KC834053 |   | <0.1 | 0.4 | <0.1 |
| *Articulospora tetracladia* strain CCM F-10113\* | 97 | KP234360 | 0.1 | 0.3 | 0.1 | <0.1 |
| Uncultured fungus clone MOTU\_3195\_GYUGVSB04JY6XO | 97 | JN905720 | 2.3 | <0.1 |   | <0.1 |
| *Articulospora proliferata* strain CCM F-11200\* | 92 | KP234351 | 1.2 | 0.6 |   | <0.1 |
| Uncultured Leotiomycetes clone FON\_16e02 | 94 | HM488478 | <0.1 | 1.3 |   | <0.1 |
| Uncultured fungus clone Contig592-105-1140\_1234 | 85 | FJ776609 |   | <0.1 | 0.2 | 0.2 |
| *Rachicladosporium cboliae* strain CPC 14034 | 98 | GU214650 | 1.8 | 0.3 |   | <0.1 |
| *Articulospora atra* strain CCM F-01384\*  | 99 | KP234353 |   |   | 0.2 | <0.1 |
| Uncultured fungus clone Singleton\_49-3019\_1447  | 95 | FJ761070 | 2.1 | 0.1 |   |   |
| *Neonectria* sp. I174  | 99 | GU062249 | 1.2 | 0.9 |   | <0.1 |
| Uncultured soil fungus clone BD48 | 100 | JQ666671 |   | 4.0 |   |   |
| Uncultured *Fusarium* clone r13 | 99 | KR063517 |   | <0.1 |   | 0.2 |
| Uncultured fungus clone MOTU\_2920\_GOKCVWY06G0ANO | 97 | JN905521 |   |   | 0.1 | 0.2 |
| Uncultured Lecanorales clone LTSP\_EUKA\_P1J14  | 91 | FJ552880 | 0.1 | <0.1 | 0.1 | <0.1 |
| *Tricladium obesum* strain CCM F-14598\* | 97 | KC834068 | <0.1 | <0.1 | 0.4 | <0.1 |
| *Paraphoma radicina* isolate 36 | 99 | KP174683 |   |   | 0.5 | <0.1 |
| Uncultured fungus clone SG023\_A04 | 97 | KP889774 | 1.9 | 0.3 |   |   |
| Uncultured fungus clone MOTU\_3038\_GYUGVSB04JBS12 | 91 | JN905603 | 0.5 | 2.1 |   |   |
| *Lophiostoma fuckelii* culture-collection CBS:113432  | 98 | EU552139 |   | 0.6 | <0.1 | <0.1 |
| *Glomus* sp. FO128-131 | 99 | FM253381 | 2.4 |   |   | <0.1 |
| *Teratosphaeria molleriana* strain CBS 118359 | 99 | EU167583 |   | 1.8 |   | <0.1 |
| *Microdochium bolleyi* isolate 20\_45D  | 99 | KC989068 |   |   | 0.1 | 0.1 |
| *Neofabraea alba* strain ID04 | 96 | KJ396077 |   | <0.1 | 0.1 | <0.1 |
| *Mortierella elongata* isolate F15 | 99 | JF439485 |   |   | 0.3 | <0.1 |
| *Podospora appendiculata* strain IFO 8549 | 99 | AY999126 |   |   | 0.3 | <0.1 |
| Uncultured fungus clone MOTU\_2426\_GOKCVWY06G4JNZ | 90 | JN905170 |   | 1.3 |   |   |
| *Tricladium obesum* strain CCM F-14598\* | 97 | KC834068 | 0.2 | <0.1 | 0.2 | <0.1 |
| Uncultured Ascomycota isolate 790 | 98 | HM141062 |   | <0.1 | 0.1 | 0.1 |
| *Filosporella fistucella* strain CCM F-13091/ *Filosporella exilis* strain CCM F-13097\* | 96 | KC834047 |   |   | 0.2 | <0.1 |
| Uncultured Discosia clone OS\_2w\_E01 | 99 | JF449727 | 1.1 | 0.3 |   |   |
| *Articulospora tetracladia* strain CCM F-10113\* | 96 | KP234360 |   | <0.1 | <0.1 | <0.1 |
| Uncultured fungus clone OTU\_50\_468\_11274 | 99 | KF222311 |   | 2.0 |   |   |
| Uncultured *Malassezia* clone IBL157f | 99 | KT334711 |   |   | 0.2 |   |
| *Alatospora acuminata* strain ccm-F13089\* | 92 | AY204589 | 0.5 | <0.1 | <0.1 | <0.1 |
| *Dinemasporium strigosum* strain CBS 520.78 | 99 | JQ889282 |   | 0.6 |   |   |
| *Devriesia fraseriae* culture-collection CBS:128217 | 99 | HQ599602 |   | 1.1 |   |   |
| Uncultured fungus clone MOTU\_3195\_GYUGVSB04JY6XO | 98 | JN905720 | 0.3 | <0.1 |   | <0.1 |
| Uncultured Auriculariales clone OTU\_99 | 98 | KT728279 | <0.1 | 0.3 |   |   |
| Uncultured fungus clone MOTU\_1840\_GOKCVWY06G673C | 98 | JN904763 | <0.1 | 0.2 | <0.1 | <0.1 |
| *Articulospora tetracladia* strain CBS 106.46\* | 98 | KP234384 | 0.2 | <0.1 |   |   |
| Uncultured fungus clone U\_QM\_090722\_258\_Bb03.b1 | 98 | JN396401 |   |   | 0.1 | <0.1 |
| *Mycosphaerella mexicana* isolate AMR216/*Teratosphaeria mexicana* | 99 | AY509769 |   | 0.4 |   |   |
| Uncultured Ascomycota clone Mesq\_D11 | 94 | EU490133 | 0.5 | 0.4 |   |   |
| *Flagellospora saccata* strain CCM F-39994\* | 97 | KC834053 |   |   | <0.1 | <0.1 |
| Uncultured fungus clone Singleton\_43-2968\_3314 | 99 | FJ762796 | <0.1 | <0.1 | <0.1 | <0.1 |
| *Seimatosporium pseudorosarum* clone MFLUCC 14-0466 | 98 | KT284775 | 0.7 | <0.1 |   | <0.1 |
| *Articulospora tetracladia* strain CCM F-10113\* | 94 | KP234360 | <0.1 | 0.3 |   |   |
| *Penidiella ellipsoidea* strain CBS 128773  | 99 | JF499843 |   | 0.3 |   |   |
| *Alatospora pulchella* strain CCM F-502\* | 98 | KC834039 | 1.3 | 0.1 |   |   |
| Uncultured fungus clone CT129 | 97 | GU461445 | 0.5 | 0.9 |   |   |
| *Articulospora tetracladia* strain CCM F-10113\* | 96 | KP234360 | <0.1 | 0.2 |   |   |
| *Articulospora tetracladia* strain CCM F-10113\* | 95 | KP234360 | <0.1 | <0.1 | <0.1 | <0.1 |
| *Alatospora pulchella* strain CCM F-502\* | 97 | KC834039 | 1.4 | <0.1 |   |   |
| *Articulospora tetracladia* strain CCM F-10113\* | 96 | KP234360 | 0.3 | 0.1 |   |   |
| *Teratosphaeria parva* strain CBS 122894 | 99 | EU707877 |   | 0.2 |   | <0.1 |
| Uncultured fungus clone SG023\_A04 | 95 | KP889774 | 1.5 | <0.1 |   |   |
| *Articulospora tetracladia* strain CCM F-10113\* | 95 | KP234360 | <0.1 | 0.4 |   |   |
| *Alatospora pulchella* strain CCM F-502\* | 92 | KC834039 |   | <0.1 | <0.1 | <0.1 |
| *Microdochium phragmitis* CBS 285.71 | 99 | AJ279449 | 0.2 | 0.1 |   |   |
| Uncultured fungus clone U\_QM\_090722\_268\_Af06.b1 | 99 | JN397343 | 0.3 | 0.1 |   |   |
| *Alnicola umbrina* strain TU110266 | 99 | JN943985 | 0.6 | <0.1 |   |   |
| *Epicoccum nigrum* strain G361 | 99 | KR094452 | <0.1 | <0.1 | <0.1 | <0.1 |
| *Lunulospora curvula* isolate UMB-499.09\* | 99 | JX089527 |   | 0.1 |   |   |
| *Venturia hystrioides* strain CBS 117727 | 99 | EU035459 | <0.1 | <0.1 |   | <0.1 |
| *Articulospora tetracladia* strain CCM F-10113\* | 98 | KP234360 | <0.1 | <0.1 | <0.1 | <0.1 |
| *Cladosporium nigrellum* strain ATCC 200937 | 98 | AF393719 |   | <0.1 |   | <0.1 |
| Uncultured fungus clone MOTU\_284\_GYUGVSB04IYRCZ | 85 | JN905465 | <0.1 | <0.1 | <0.1 | <0.1 |
| *Thelonectria discophora* culture-collection CBS:125487 | 98 | HQ897789 | <0.1 | <0.1 | <0.1 | <0.1 |
| *Articulospora tetracladia* strain CCM F-14298\*  | 96 | EU998923 |   | <0.1 | <0.1 | <0.1 |
| Uncultured fungus clone MOTU\_1840\_GOKCVWY06G673C | 97 | JN904763 |   | 0.2 |   |   |
| Ascomycete sp. olrim401 | 93 | AY781244 | <0.1 | 0.2 |   |   |
| *Filosporella cf. annelidica* CCM F-11702\*  | 97 | KC834044 | <0.1 | 0.2 | <0.1 | <0.1 |
| Uncultured Erysiphaceae | 99 | DQ066421 |   | <0.1 | <0.1 |   |
| Uncultured Mortierella clone LTSP\_EUKA\_P4O11 | 99 | FJ553914 |   |   | 0.1 | <0.1 |
| *Flagellospora saccata* strain CCM F-39994\* | 89 | KC834053 | <0.1 | <0.1 |   |   |
| *Articulospora tetracladia* strain CCM F-10113\* | 89 | KP234360 | <0.1 | 0.1 |   |   |
| Uncultured fungus clone SW008\_H12 | 96 | KP889776 |   |   | <0.1 | <0.1 |
| *Catenulostroma hermanusense* strain CBS 128768 | 96 | JF499833 |   | 0.5 |   |   |
| *Articulospora proliferata* strain CCM F-11200\* | 96 | KP234351 | 0.2 | <0.1 |   |   |
| *Articulospora tetracladia* strain CCM F-10113\* | 96 | KP234360 |   |   | <0.1 | <0.1 |
| *Fontanospora fusiramosa* strain CCM F-11313\*  | 95 | KP234355 |   |   | <0.1 | <0.1 |
| *Alatospora acuminata* strain ccm-F13089\* | 95 | AY204589 |   |   | 0.0 |   |
| *Articulospora tetracladia* strain CCM F-10113\* | 97 | KP234360 |   | <0.1 | <0.1 | <0.1 |
| *Botrytis cinerea* B05.10 | 100 | CP009808 |   | 0.3 |   | <0.1 |
| *Montagnula scabiosae* strain MFLUCC 14-0954  | 99 | KT443907 |   | 0.2 |   |   |
| *Paraconiothyrium brasiliense* isolate F01 | 99 | JF439492 | <0.1 | <0.1 | <0.1 | <0.1 |
| *Fontanospora fusiramosa* strain CCM F-11313\*  | 96 | KP234355 |   |   | <0.1 | <0.1 |
| Uncultured fungus clone Unisequence#69-3354\_2750 | 99 | GQ524076 |   | <0.1 |   | <0.1 |
| *Articulospora tetracladia* strain CCM F-14298\* | 90 | EU998923 |   |   |   | <0.1 |
| *Phoma herbarum* genomic DNA | 98 | FN868459 |   | <0.1 |   | <0.1 |
| Ascomycete sp. olrim401 | 94 | AY781244 |   |   | <0.1 | <0.1 |
| Uncultured fungus clone CMH115 | 96 | KF800206 |   |   | <0.1 | <0.1 |
| *Varicosporium elodeae* strain WA0000019152\* | 97 | JX981463 |   |   | <0.1 | <0.1 |
| *Vibrissea filisporia* 18S ribosomal RNA gene | 95 | JX415338 |   |   | <0.1 | <0.1 |
| *Glomerella acutata* strain JF17 | 99 | FJ455523 |   | <0.1 |   |   |
| *Epicoccum nigrum* 18S ribosomal RNA gene | 99 | FJ904918 | <0.1 | <0.1 | <0.1 | <0.1 |
| *Flagellospora saccata* strain CCM F-39994\* | 94 | KC834053 |   |   | <0.1 | <0.1 |
| *Articulospora tetracladia* strain CCM F-10113\* | 95 | KP234360 | <0.1 | 0.1 |   |   |
| Uncultured ectomycorrhizal fungus genes | 98 | AB669512 |   |   |   | <0.1 |
| Uncultured fungus clone MOTU\_437\_G2Q8WDE03C34U2 | 99 | JN906555 |   | 0.4 |   |   |
| Uncultured fungus clone MOTU\_51\_GOKCVWY06GU9GB | 99 | JN906617 | <0.1 | <0.1 |   | <0.1 |
| *Nectria diminuta* culture-collection CBS:114636 | 99 | HQ897813 |   | <0.1 |   | <0.1 |
| *Alatospora pulchella* strain CCM F-502\*  | 87 |  KC834039 |   |   | <0.1 | <0.1 |
| Uncultured Sordariomycetes clone AhedenH7 | 88 | FJ475695 |   |   | <0.1 | <0.1 |
| *Flagellospora curvula* strain CB-M13\* | 95 | KC834045 |   |   |   | <0.1 |
| *Articulospora tetracladia* strain CCM F-10113\* | 99 | KP234360 | <0.1 | <0.1 | <0.1 | <0.1 |
| Uncultured fungus clone CMH112 | 99 | KF800203 |   | <0.1 |   | <0.1 |
| *Articulospora tetracladia* strain CCM F-10113\* | 93 | KP234360 |   | <0.1 |   | <0.1 |
| Uncultured fungus clone OTU#2354-63-3414\_0957 | 99 | GQ510604 |   | 0.1 |   |   |
| Uncultured fungus clone OTU#2950-61-3429\_1608 | 95 | GQ511198 |   |   |   | <0.1 |
| *Thelonectria discophora* culture-collection CBS:125487 | 95 | HQ897789 |   |   | <0.1 | <0.1 |
| *Flagellospora curvula* strain CB-M13\* | 95 | KC834045 |   |   |   | <0.1 |
| *Flagellospora curvula* strain CB-M13\*  | 94 | KC834045 |   |   | <0.1 | <0.1 |
| *Filosporella cf. annelidica* CCM F-11702\*  | 95 | KC834044 |   |   | <0.1 | <0.1 |
| *Gorgomyces honrubiae* strain CCM F-12003\*  | 93 | KC834057 |   |   | <0.1 | <0.1 |
| *Hymenoscyphus monotropae* voucher CC 19-47 | 96 | KF359569 |   | <0.1 | <0.1 | <0.1 |
| Uncultured fungus clone MOTU\_1840\_GOKCVWY06G673C | 98 | JN904763 | 0.1 | <0.1 |   |   |
| *Articulospora tetracladia* strain CCM F-10113\* | 97 | KP234360 |   | <0.1 |   | <0.1 |
| *Articulospora tetracladia* strain CCM F-10113\* | 95 | KP234360 | <0.1 | <0.1 |   |   |
| *Varicosporium elodeae* strain WA0000019152\* | 93 | JX981463 |   |   | <0.1 | <0.1 |
| *Vibrissea filisporia* 18S ribosomal RNA gene | 91 | JX415338 |   |   | <0.1 | <0.1 |
| Ascomycete sp. olrim401 | 94 | AY781244 |   |   | <0.1 | <0.1 |
| *Articulospora tetracladia* strain CCM F-10113\* | 95 | KP234360 | <0.1 | <0.1 | <0.1 | <0.1 |
| *Articulospora tetracladia* strain CCM F-10113\* | 91 | KP234360 |   |   | <0.1 | <0.1 |
| *Flagellospora curvula* strain CB-M13\* | 92 | KC834045 |   |   | <0.1 | <0.1 |
| *Articulospora tetracladia* strain CCM F-10113\* | 97 | KP234360 |   |   | <0.1 | <0.1 |
| *Monochaetia kansensis* strain ZJLQ463 | 99 | KC345691 |   |   |   | <0.1 |
| Uncultured Erysiphaceae | 97 | DQ066421 |   | 0.1 | <0.1 |   |
| *Phoma herbarum* strain ASR\_H56\_24A | 99 | JX421725 |   | <0.1 |   | <0.1 |
| Uncultured fungus clone 035A11278 | 98 | JX365757 |   | <0.1 |   |   |
| Uncultured fungus clone U\_QM\_090722\_76\_Ae03.b1 | 99 | JN397005 | 0.1 | <0.1 |   |   |
| *Articulospora atra* strain CCM F-01384\* | 98 | KP234353 |   |   | <0.1 | <0.1 |
| *Capnobotryella* sp. MA 4642 | 98 | AJ971406 |   |   |   | <0.1 |
| Uncultured fungus clone MOTU\_3160\_GOKCVWY06GWYX5 | 96 | JN905693 |   | 0.2 |   |   |
| *Varicosporium elodeae* strain WA0000019152\* | 97 | JX981463 |   | <0.1 |   | <0.1 |
| *Antennariella placitae* ITS region | 99 | NR\_132831 |   | <0.1 |   |   |
| *Flagellospora saccata* strain CCM F-39994\* | 87 | KC834053 |   | <0.1 |   |   |
| *Catenulostroma hermanusense* strain CBS 128768 | 99 | JF499833 |   | <0.1 |   |   |
| *Clavariopsis aquatica*18S ribosomal RNA gene\* | 96 | GQ152143 | <0.1 | <0.1 |   |   |
| *Flagellospora saccata* strain CCM F-39994\* | 96 | KC834053 |   |   |   | <0.1 |
| *Monodictys arctica* strain UAMH 10719 | 97 | EU686520 | <0.1 | <0.1 |   |   |
| Uncultured fungus clone 106\_NA11\_P33\_A24  | 97 | KC965976 |   |   | <0.1 | <0.1 |
| *Articulospora tetracladia* strain CCM F-14298\* | 95 | EU998923 |   |   | <0.1 | <0.1 |
| Uncultured fungus clone MOTU\_2960\_GOKCVWY06G12WS | 99 | JN905545 |   | <0.1 |   |   |
| Uncultured fungus clone SG061\_D07 | 92 | KP889636 |   |   |   | <0.1 |
| *Articulospora tetracladia* strain CBS 106.46\* | 93 | KP234384 |   | <0.1 |   | <0.1 |
| Uncultured fungus clone MOTU\_2243\_GOKCVWY06GWIQ4 | 99 | JN905046 |   |   |   | <0.1 |
| *Articulospora tetracladia* strain CCM F-14299\* | 93 | KP234360 |   | <0.1 |   | <0.1 |
| *Catenulostroma hermanusense* strain CBS 128768 | 96 | JF499833 |   | <0.1 |   |   |
| *Flagellospora curvula* strain CB-M13\* | 93 | KC834045 |   |   |   | <0.1 |
| *Orbilia sp. 'rosea'* 18S ribosomal RNA gene | 97 | KM199779 |   |   |   | <0.1 |
| *Venturia atriseda* strain CBS 371.55 | 97 | EU035448 |   | <0.1 |   | <0.1 |
| *Articulospora tetracladia* strain CCM F-14299\* | 94 | KP234360 |   |   | <0.1 | <0.1 |
| *Orbilia sp. 'rosea'* 18S ribosomal RNA gene | 93 | KM199779 |   |   |   | <0.1 |
| *Rachicladosporium cboliae* strain CPC 14034 | 97 | GU214650 | <0.1 | <0.1 |   |   |
| Uncultured fungus clone MOTU\_2562\_GOKCVWY06G38AF | 99 | JN905263 | <0.1 | <0.1 | <0.1 |   |
| Uncultured fungus clone MOTU\_2591\_GOKCVWY06GSTXH | 93 | JN905286 |   |   | <0.1 | <0.1 |
| *Articulospora tetracladia* strain CCM F-14299\* | 98 | KP234360 | <0.1 | <0.1 | <0.1 | <0.1 |
| *Lunulospora curvula* isolate UMB-499.09\* | 97 | JX089527 | <0.1 | <0.1 |   |   |
| *Tricladium obesum* strain CCM F-14598\* | 97 | KC834068 | <0.1 | <0.1 |   |   |
| Uncultured fungus clone MOTU\_862\_GYUGVSB04IYKEH | 98 | JN906872 |   |   |   | <0.1 |
| *Articulospora tetracladia* strain CCM F-10113\* | 91 | KP234360 | <0.1 | <0.1 |   |   |
| *Paraconiothyrium archidendri* strain CBS 168.77 | 99 | JX496049 |   | <0.1 |   |   |
| Uncultured fungus clone MOTU\_1431\_GOKCVWY06HB3UZ | 99 | JN904461 |   |   |   | <0.1 |
| *Alternaria brassicae* 18S ribosomal RNA gene | 97 | AY154714 |   | <0.1 |   |   |
| *Articulospora proliferata* strain CCM F-11200\* | 91 | KP234351 | <0.1 | <0.1 |   |   |
| *Articulospora tetracladia* strain CCM F-10113\* | 94 | KP234360 |   |   | <0.1 | <0.1 |
| *Alatospora pulchella* strain CCM F-502\* | 93 | KC834039 |   | <0.1 |   |   |
| *Articulospora proliferata* strain CCM F-11200\* | 92 | KP234351 |   | <0.1 |   |   |
| *Articulospora tetracladia* strain CCM F-10113\* | 95 | KP234360 | <0.1 | <0.1 |   |   |
| *Cladosporium cladosporioides* 18S rRNA gene | 99 | AJ300335 |   | <0.1 |   |   |
| *Cryptococcus* sp. 6-13 | 99 | KT372800 |   | <0.1 |   |   |
| *Penidiella ellipsoidea* strain CBS 128773 | 96 | JF499843 |   | <0.1 |   |   |
| *Sclerostagonospora* sp. CBS 118152 | 99 | JX517283 |   | <0.1 |   |   |
| Uncultured fungus clone MOTU\_1421\_GOKCVWY06HD8P9 | 99 | JN904456 |   |   |   | <0.1 |
| Uncultured soil fungus clone 137-18 | 96 | DQ421226 |   | <0.1 |   |   |
| *Varicosporium elodeae* strain WA0000019152\* | 95 | JX981463 |   |   |   | <0.1 |
| *Articulospora tetracladia* strain CCM F-10113\* | 94 | KP234360 | <0.1 | <0.1 |   |   |
| *Flagellospora curvula* strain CB-M13\* | 96 | KC834045 |   | <0.1 |   | <0.1 |
| *Leptosphaerulina* sp. DBCMVB | 98 | KJ867213 | <0.1 | <0.1 |   |   |
| *Tyromyces chioneus* voucher UBCF23782 | 98 | KC581305 |   |   | <0.1 |   |
| Uncultured fungus clone MOTU\_614\_GYUGVSB04IPO8J | 95 | JN906687 |   | <0.1 |   |   |
| Uncultured fungus clone SG023\_A04 | 95 | KP889774 | 0.1 | <0.1 |   |   |
| Uncultured Lecanorales clone LTSP\_EUKA\_P1J14 | 91 | FJ552880 |   |   | <0.1 | <0.1 |
| *Articulospora tetracladia* strain CBS 106.46\* | 97 | KP234384 | <0.1 | <0.1 |   | <0.1 |
| *Articulospora tetracladia* strain CCM F-03680c\* | 92 | EU998926 |   | <0.1 |   | <0.1 |
| *Articulospora tetracladia* strain CCM F-10113\* | 96 | KP234360 |   | <0.1 |   |   |
| *Articulospora tetracladia* strain CCM F-10113\* | 96 | KP234360 |   |   |   | <0.1 |
| *Claviceps paspali* genes for 18S rRNA | 98 | AB250409 |   | <0.1 |   |   |
| *Neoerysiphe galeopsidis* specimen\_voucher: KW:33697F, MUMH 4657 | 99 | AB498940 |   | <0.1 |   |   |
| *Sclerostagonospora cycadis* strain CBS 291.76 | 99 | KR611890 | <0.1 | <0.1 |   | <0.1 |
| Uncultured fungus clone HS3-31 | 98 | KU141315 | <0.1 | <0.1 |   |   |
| Uncultured fungus clone N3D28\_27 | 92 | HQ445274 |   | <0.1 |   |   |
| Uncultured soil fungus clone BL21 | 99 | JQ666340 |   | <0.1 |   |   |
| *Flagellospora fusarioides* strain CCM F-14583\* | 91 | KC834048 |   |   |   | <0.1 |
| *Fontanospora fusiramosa* strain CCM F-11313\* | 94 | KP234355 | <0.1 | <0.1 |   |   |
| *Nigrospora sphaerica* genomic DNA | 100 | LN809021 |   |   |   | <0.1 |
| *Teratosphaeria pseudafricana* strain PM16 | 98 | JN232423 |   |   |   | <0.1 |
| Uncultured fungus clone 036A23583 | 95 | JX377779 |   | <0.1 |   |   |
| Uncultured fungus clone LMRF\_66 | 99 | GU078632 |   | <0.1 |   | <0.1 |
| Uncultured fungus clone OTU\_951\_GW5CJXV07IMV3E | 97 | JF945083 |   | <0.1 |   | <0.1 |
| *Flagellospora curvula* strain CB-M13\* | 92 | KC834045 |   | <0.1 |   | <0.1 |
| Uncultured ectomycorrhiza (Leotiomycetes) clone LTSP\_EUKA\_P6B23 | 96 | FJ554268 |   |   |   | <0.1 |
| Uncultured fungus clone MOTU\_1973\_GOKCVWY06GZJIU | 99 | JN904860 |   | <0.1 |   |   |
| Uncultured fungus clone MOTU\_2252\_GYUGVSB04H83BQ | 99 | JN905054 |   | <0.1 |   | <0.1 |
| Uncultured fungus clone MOTU\_3253\_GOKCVWY06G3NZ9 | 96 | JN905762 |   |   |   | <0.1 |
| *Cylindrocarpon pauciseptatum* strain Cy238  | 100 | JF735307 |   | <0.1 |   |   |
| *Flagellospora curvula* strain CB-M13\* | 95 | KC834045 |   |   |   | <0.1 |
| *Flagellospora saccata* strain CCM F-39994\* | 89 | KC834053 |   | <0.1 |   |   |
| Fungal endophyte sp. ICMP 16120 | 93 | EU482201 | <0.1 | <0.1 |   |   |
| *Ilyonectria liriodendri* strain Cy122  | 97 | JF735261 |   | <0.1 |   |   |
| *Lophiostoma corticola* strain Fst64 | 98 | KC464348 |   | <0.1 |   | <0.1 |
| *Lophiostoma fuckelii* culture-collection CBS:113432 | 98 | EU552139 |   | <0.1 |   |   |
| *Penicillium spinulosum* small subunit ribosomal RNA gene | 100 | KF646101 |   | <0.1 |   | <0.1 |
| *Tricladium chaetocladium* strain UMB-854.11\* | 99 | KF952683 |   | <0.1 |   |   |
| Uncultured fungus clone MOTU\_3639\_GOKCVWY06HEW3C | 96 | JN906053 |   | <0.1 |   |   |
| Uncultured soil fungus clone A20 | 99 | HM037656 |   | <0.1 |   |   |
| *Articulospora tetracladia* strain CCM F-10113\* | 95 | KP234360 |   | <0.1 |   |   |
| *Articulospora tetracladia* strain CCM F-10113\* | 97 | KP234360 |   |   |   | <0.1 |
| *Articulospora tetracladia* strain CCM F-11805\* | 89 | EU998928 |   |   | <0.1 | <0.1 |
| *Articulospora tetracladia* strain CCM F-11805\* | 93 | EU998928 |   |   |   | <0.1 |
| Ascomycota sp. I364 | 99 | GU062306 |   |   | <0.1 | <0.1 |
| Ascomycota sp. UNEX FECRGA 2012E266 | 100 | KP899437 |   | <0.1 |   |   |
| *Colletotrichum acutatum* 18S rRNA gene | 99 | AJ301971 |   |   |   | <0.1 |
| *Lunulospora curvula* isolate UMB-499.09\* | 98 | JX089527 |   | <0.1 |   |   |
| *Periconia* sp. 0511ARD16P1 | 95 | LN808857 |   | <0.1 |   | <0.1 |
| Uncultured fungus clone 035A13809 | 99 | JX368249 |   |   |   | <0.1 |
| Uncultured fungus clone OTU\_1689\_77\_5532 | 99 | KF221505 |   | <0.1 |   |   |
| Uncultured fungus clone Unisequence#61-3282\_2843 | 93 | GQ526591 |   | <0.1 |   |   |
| Uncultured Lecanorales clone LTSP\_EUKA\_P1J14 | 92 | FJ552880 |   |   |   | <0.1 |
| *Varicosporium elodeae* strain WA0000019152\* | 97 | JX981463 |   |   | <0.1 | <0.1 |
| *Alatospora flagellata* strain CCM F-501\* | 95 | KC834041 |   |   |   | <0.1 |
| *Articulospora tetracladia* strain CBS 106.46\* | 97 | KP234384 |   | <0.1 |   |   |
| *Articulospora tetracladia* strain CCM F-10113\* | 94 | KP234360 |   |   |   | <0.1 |
| *Articulospora tetracladia* strain CCM F-10113\* | 93 | KP234360 |   |   |   | <0.1 |
| *Cladosporium rhusicola* culture-collection CPC:15219 | 100 | KT600440 | <0.1 | <0.1 |   |   |
| *Didymella rosea* voucher TAS 042-0012 | 99 | KT287020 |   |   |   | <0.1 |
| *Discosia pseudoartocreas* CBS 136438 | 93 | NR\_132068 |   | <0.1 |   | <0.1 |
| *Flagellospora curvula* strain CB-M13\* | 94 | KC834045 |   |   |   | <0.1 |
| *Flagellospora saccata* strain CCM F-39994\* | 95 | KC834053 |   |   |   | <0.1 |
| *Flagellospora saccata* strain CCM F-39994\* | 94 | KC834053 |   |   |   | <0.1 |
| Fungal sp. TRN499 | 99 | AY843181 |   | <0.1 |   |   |
| *Fusicladium mandshuricum* strain CBS 112235 | 96 | EU035433 |   | <0.1 |   | <0.1 |
| *Paraphaeosphaeria sporulosa* strain CBS 401.71 | 95 | JX496084 |   |   |   | <0.1 |
| *Trichocladium asperum* isolate PRF02 | 99 | KC311502 |   | <0.1 |   |   |
| Uncultured fungus genes | 88 | AB580909 | <0.1 |   |   |   |
| *Verticillium* sp. I88 | 94 | GU062214 |   | <0.1 |   |   |
| *Xenopolyscytalum pinea* culture-collection CPC:14225 | 99 | HQ599580 |   |   |   | <0.1 |
| *Alatospora pulchella* strain CCM F-502\* | 87 | KC834039 |   | <0.1 |   |   |
| *Bisporella citrina* voucher ILLS:61033 | 93 | JQ256414 |   | <0.1 |   |   |
| *Flagellospora curvula* strain CB-M13\* | 95 | KC834045 |   |   |   | <0.1 |
| Fungal sp. ARIZ B179cA | 81 | FJ612951 | <0.1 |   |   |   |
| *Fusarium cortaderiae* isolate EFA 6FCMG  | 99 | KF576625 |   | <0.1 |   |   |
| *Neofabraea alba* strain ID04 | 95 | KJ396077 |   | <0.1 |   | <0.1 |
| *Paraphaeosphaeria michotii* strain CBS 340.86 | 98 | JX496079 | <0.1 |   | <0.1 |   |
| *Peziza badia* voucher 14638  | 97 | JF908544 |   | <0.1 |   |   |
| *Phoma exigua var. exigua* clone 26its22 | 99 | EU343168 |   | <0.1 |   | <0.1 |
| *Spirosphaera floriformis* strain CBS 402.52 | 99 | HQ696658 |   |   |   | <0.1 |
| *Tricladium minutum* 18S ribosomal RNA gene\* | 93 | JQ412863 |   |   |   | <0.1 |
| Uncultured Ascomycota clone LTSP\_EUKA\_P5B18 | 86 | FJ553969 |   |   |   | <0.1 |
| Uncultured fungus clone MOTU\_1647\_GOKCVWY06HA8CT | 99 | JN904620 |   | <0.1 |   |   |
| *Variocladium giganteum* CBS 508.71\* | 96 | NR\_111206 |   |   | <0.1 | <0.1 |
| *Alatospora flagellata* strain CCM F-501\* | 97 | KC834041 |   |   | <0.1 | <0.1 |
| *Articulospora tetracladia* strain CCM F-10113\* | 95 | KP234360 |   | <0.1 |   |   |
| *Articulospora tetracladia* strain CCM F-10113\* | 95 | KP234360 |   | <0.1 |   |   |
| *Articulospora tetracladia* strain CCM F-10113\* | 98 | KP234360 |   | <0.1 |   |   |
| *Articulospora tetracladia* strain CCM F-10113\* | 87 | KP234360 |   |   |   | <0.1 |
| *Articulospora tetracladia* strain CCM F-11805\* | 92 | EU998928 |   |   | <0.1 | <0.1 |
| *Bisporella citrina* voucher ILLS:61033 | 93 | JQ256414 |   |   |   | <0.1 |
| *Deconica citrispora* voucher PDD:87522 | 98 | KM975431 |   | <0.1 |   |   |
| *Filosporella cf. annelidica* CCM F-11702\* | 99 | KC834044 |   |   | <0.1 |   |
| *Flagellospora curvula* strain CB-M13\* | 95 | KC834045 |   |   |   | <0.1 |
| *Flagellospora curvula* strain CB-M13\* | 93 | KC834045 |   |   |   | <0.1 |
| *Flagellospora saccata* strain CCM F-39994\* | 89 | KC834053 |   | <0.1 |   |   |
| *Fontanospora fusiramosa* strain CCM F-11313\* | 95 | KP234355 |   |   |   | <0.1 |
| *Neophysalospora eucalypti* culture-collection CBS:138864 | 99 | KP004462 |   | <0.1 |   |   |
| *Stylonectria applanata* culture-collection CBS:125489 | 100 | HQ897805 |   |   |   | <0.1 |
| *Teratosphaeriopsis pseudafricana* strain CBS 111171 | 97 | KF901738 |   | <0.1 |   |   |
| Uncultured ascomycete ITS region | 99 | AM901813 |   | <0.1 |   |   |
| Uncultured Ascomycota clone 430 | 92 | HM239990 |   |   |   | <0.1 |
| Uncultured Erysiphaceae | 99 |  DQ066421 | <0.1 |   |   |   |
| Uncultured fungus clone 038A40009 | 97 | JX356858 |   | <0.1 |   |   |
| Uncultured fungus clone 106\_NA11\_P33\_A24 | 92 | KC965976 |   |   |   | <0.1 |
| Uncultured fungus clone 107A68083 | 91 | JX334160 |   |   |   | <0.1 |
| Uncultured fungus clone 3270A8 | 97 | KF617316 |   |   |   | <0.1 |
| Uncultured fungus clone MOTU\_3930\_GYUGVSB04JW4D2 | 87 | JN906262 |   | <0.1 |   |   |
| Uncultured fungus clone N145 | 89 | JF300564 |   |   |   | <0.1 |
| Uncultured fungus clone OTU\_361\_GW5CJXV07IPNX5 | 99 | JF944982 |   | <0.1 |   | <0.1 |
| Uncultured fungus clone SG023\_A04 | 96 | KP889774 | <0.1 | <0.1 |   |   |
| Uncultured fungus clone Singleton\_28-2763\_3239 | 97 | FJ760606 | <0.1 |   |   |   |
| Uncultured *Sterigmatomyces* clone Leof66  | 80 | KF225855 |   |   |   | <0.1 |
| *Varicosporium elodeae* strain WA0000019152\* | 97 | JX981463 |   |   |   | <0.1 |
| *Alatospora acuminata* strain ccm-F13089\* | 89 | AY204589 | <0.1 | <0.1 |   |   |
| *Alatospora flagellata* strain CCM F-501\* | 97 | KC834041 |   |   | <0.1 |   |
| *Alatospora pulchella* strain CCM F-502\* | 88 | KC834039 |   |   |   | <0.1 |
| *Anguillospora filiformis* isolate UMB-704.11\* | 99 | JX089461 |   | <0.1 |   |   |
| *Articulospora atra* strain CCM F-01384\* | 88 | KP234353 |   | <0.1 |   |   |
| *Articulospora tetracladia* strain CBS 106.46\* | 97 | KP234384 |   | <0.1 |   |   |
| *Articulospora tetracladia* strain CCM F-10113\* | 96 | KP234360 |   |   | <0.1 | <0.1 |
| *Articulospora tetracladia* strain CCM F-10113\* | 95 | KP234360 |   |   | <0.1 |   |
| *Articulospora tetracladia* strain CCM F-10113\* | 93 | KP234360 |   | <0.1 |   |   |
| *Articulospora tetracladia* strain CCM F-10113\* | 94 | KP234360 |   |   |   | <0.1 |
| *Articulospora tetracladia* strain CCM F-10113\* | 97 | KP234360 |   |   |   | <0.1 |
| *Articulospora tetracladia* strain CCM F-11805\* | 92 | EU998928 |   |   |   | <0.1 |
| *Articulospora tetracladia* strain CCM F-14298\* | 96 | EU998923 |   |   |   | <0.1 |
| *Articulospora tetracladia* strain CCM F-14298\* | 96 | EU998923 |   | <0.1 |   | <0.1 |
| *Dendryphion europaeum* strain CPC 22943 | 100 | KJ869146 |   | <0.1 |   |   |
| *Elaphocordyceps inegoensis* genes | 99 | AB027368 |   |   |   | <0.1 |
| *Embellisia eureka* EGS 36-103  | 98 | AF392989 |   |   |   | <0.1 |
| *Filosporella versimorpha* strain CCM F-11194\* | 94 | KC834054 |   | <0.1 |   |   |
| *Flagellospora curvula* strain CB-M13\* | 93 | KC834045 |   |   | <0.1 | <0.1 |
| *Flagellospora curvula* strain CB-M13\*  | 98 | KC834045 |   |   | <0.1 | <0.1 |
| *Flagellospora saccata* strain CCM F-39994\* | 91 | KC834053 |   |   | <0.1 | <0.1 |
| *Fontanospora fusiramosa* strain CCM F-11313\* | 96 | KP234355 |   |   | <0.1 | <0.1 |
| Fungal sp. C22 AR-2014 | 98 | KF527820 |   | <0.1 |   |   |
| *Fusarium larvarum* strain BLD5 | 96 | FN868469 |   | <0.1 |   |   |
| *Hymenoscyphus monotropae* voucher CC 19-47 | 94 | KF359569 |   | <0.1 |   | <0.1 |
| *Infundichalara microchona* voucher CC 14-48 | 98 | KF359590 |   |   |   | <0.1 |
| *Mycosphaerella graminicola* strain CBS 100335 | 98 | EU019297 |   |   |   | <0.1 |
| *Neofabraea alba* strain ID04 | 93 | KJ396077 |   | <0.1 |   |   |
| *Penidiella ellipsoidea* strain CBS 128773 | 91 | JF499843 |   | <0.1 |   |   |
| *Pestalotiopsis* sp. 338p | 99 | KM507773 |   | <0.1 |   |   |
| Uncultured fungus clone 036A29166 | 98 | JX383191 |   |   |   | <0.1 |
| Uncultured fungus clone 109A77540 | 97 | JX389250 |   |   | <0.1 |   |
| Uncultured fungus clone 236967 | 89 | KP867316 |   | <0.1 |   |   |
| Uncultured fungus clone 38\_NA4\_P32\_B6 | 81 | KC965223 |   |   | <0.1 |   |
| Uncultured fungus clone LT8 | 94 | HQ701748 |   | <0.1 |   |   |
| Uncultured fungus clone MOTU\_10\_GOKCVWY06G1DGV | 99 | JN904225 | <0.1 |   |   |   |
| Uncultured fungus clone MOTU\_3298\_GOKCVWY06GRT4E | 99 | JN905792 |   |   |   | <0.1 |
| Uncultured fungus clone MOTU\_783\_GYUGVSB04H4KL2 | 93 | JN906812 |   |   | <0.1 |   |
| Uncultured fungus clone OTU\_1854\_427\_34960 | 99 | KF221550 |   | <0.1 |   |   |
| Uncultured fungus clone SG061\_D07 | 95 | KP889636 |   |   | <0.1 |   |
| Uncultured fungus clone SW008\_H12 | 95 | KP889776 |   |   |   | <0.1 |
| Uncultured fungus clone U\_QM\_090722\_102\_Be07.b1 | 91 | JN395462 |   |   | <0.1 | <0.1 |
| Uncultured Helotiales clone LTSP\_EUKA\_P1B19 | 99 | FJ552732 |   |   |   | <0.1 |
| Nº of OTUs |   |   | 109 | 232 | 120 | 219 |