

Supplementary files

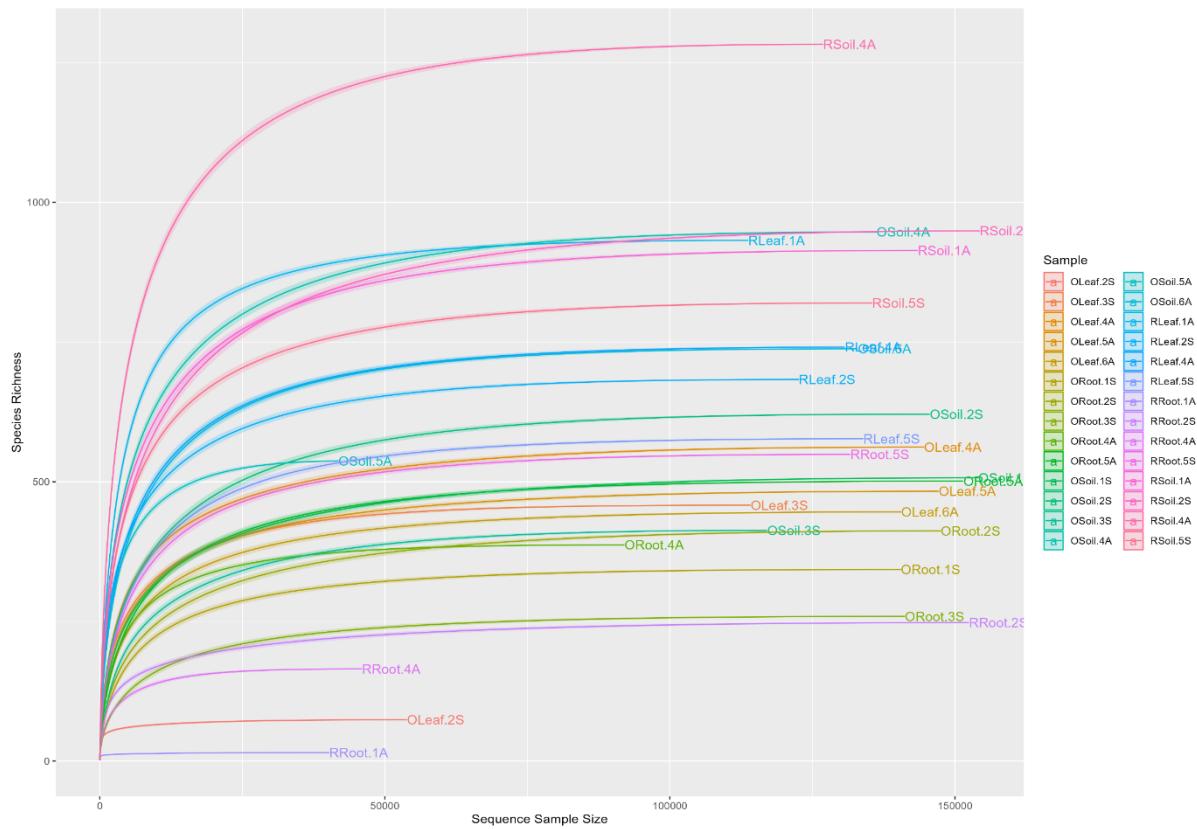


Fig. S1: Rarefaction curve for alpha-diversity analysis indicating a sufficient representation of each sample at the selected depth.

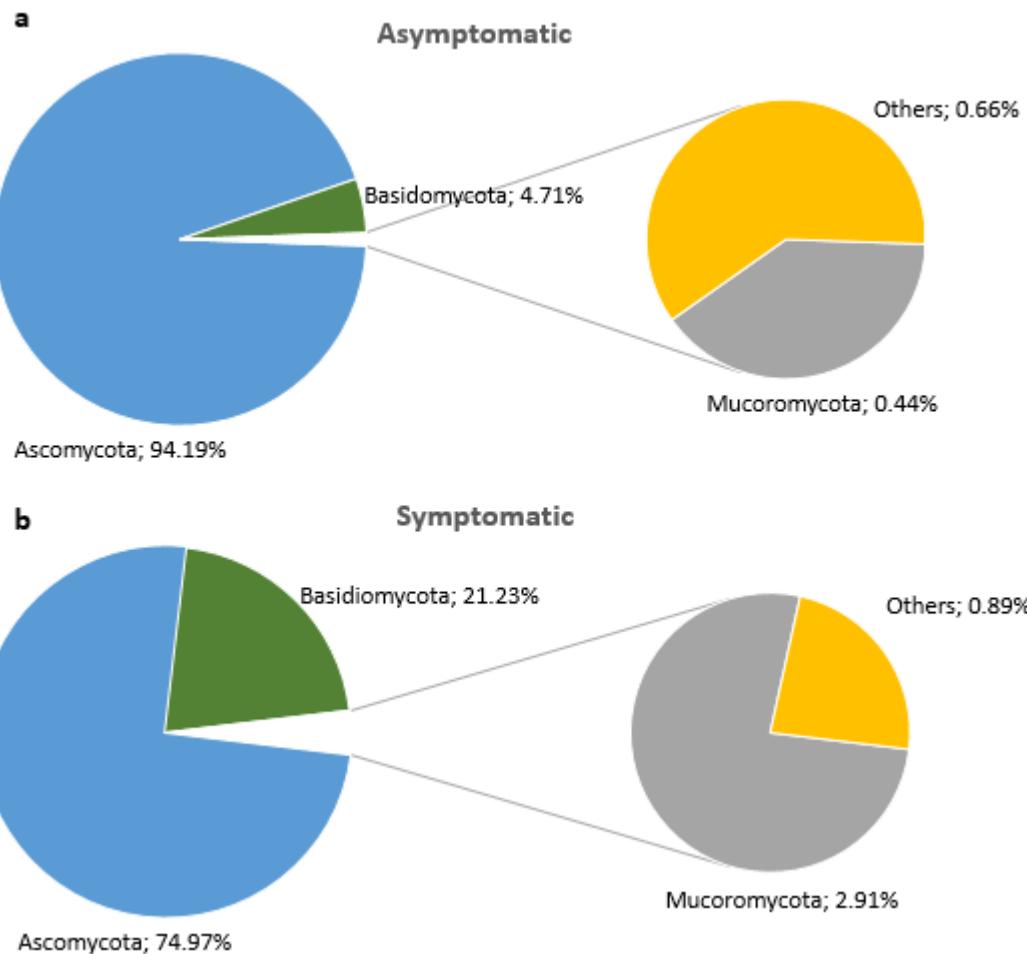
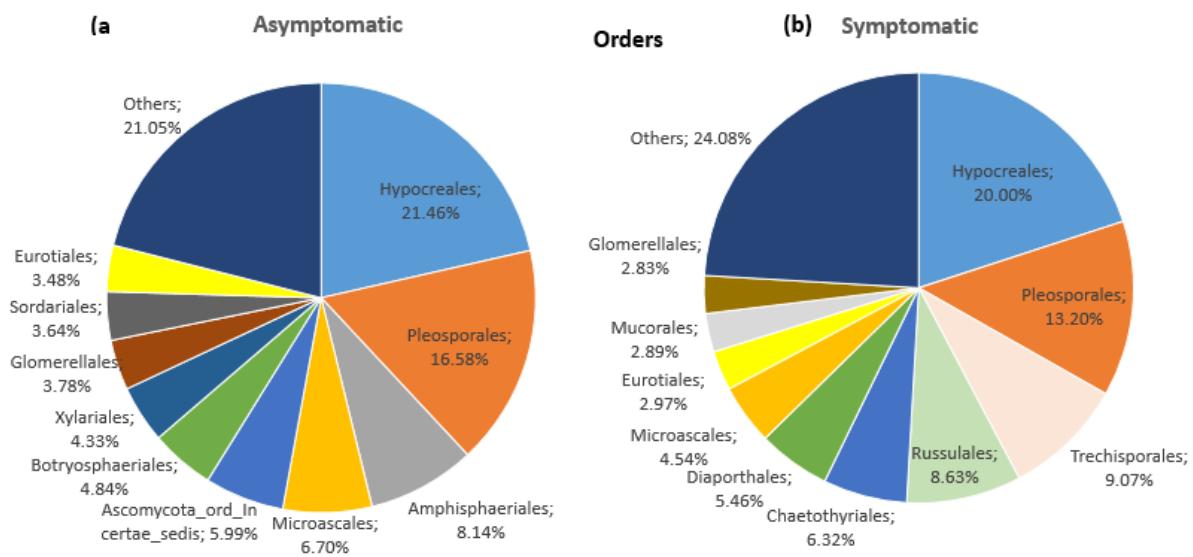
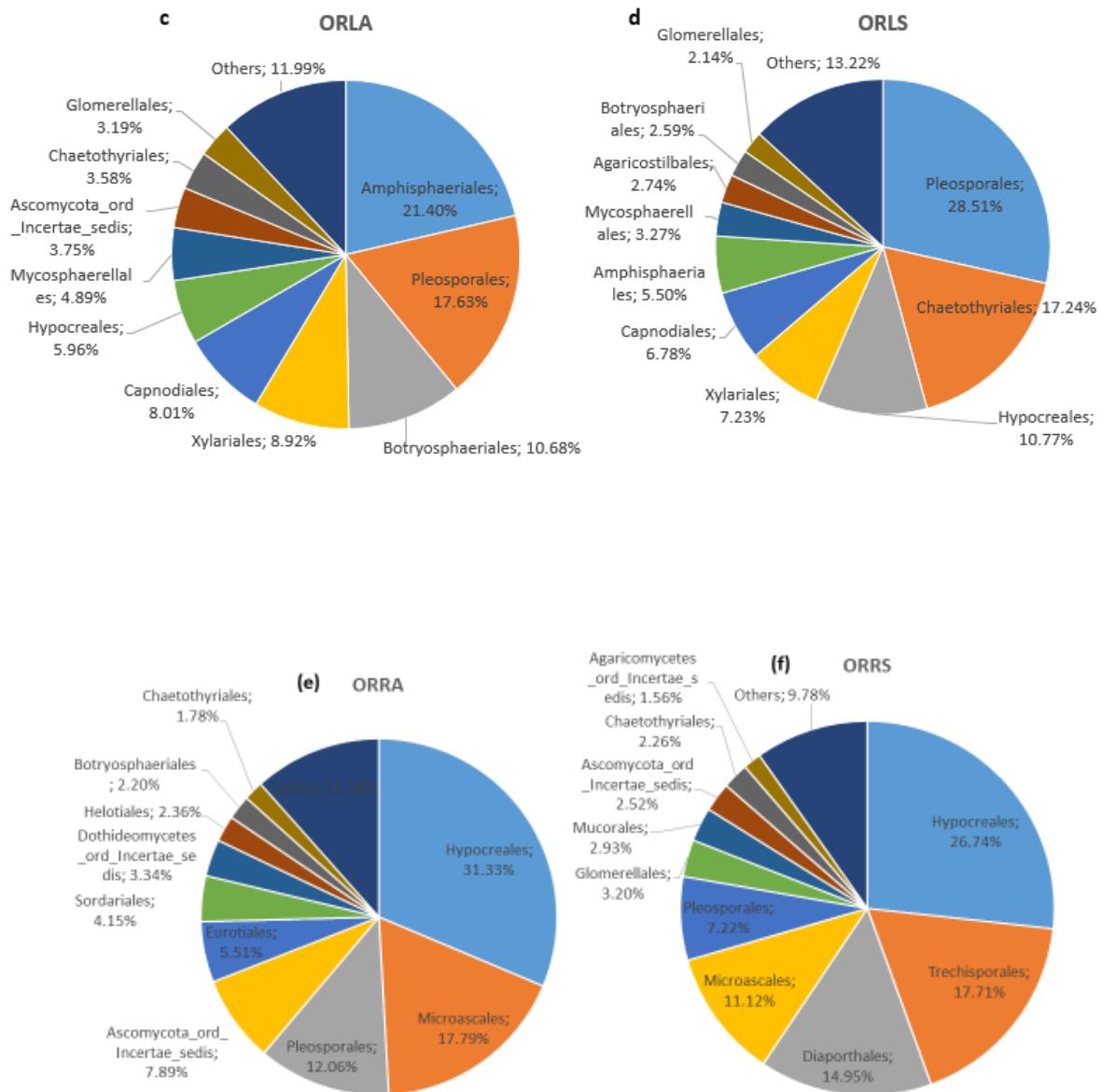


Fig. S2: Relative abundance of the dominant phyla based on sample type.





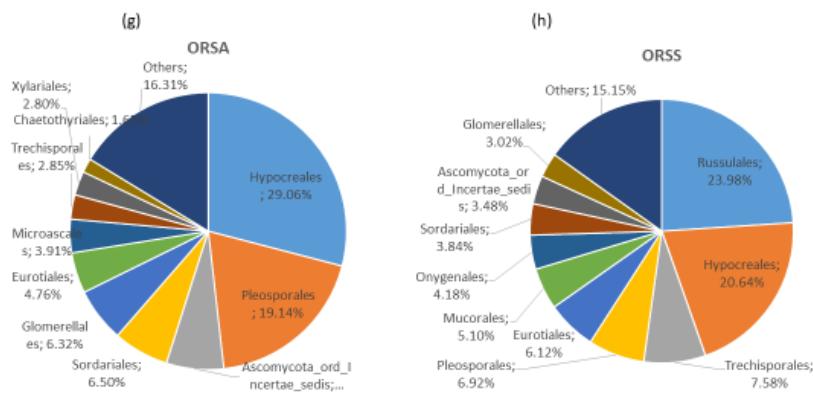


Fig. S3: Relative abundance of fungal orders from annotated ASVs based on sample type (a &b) and group (c-h).

Table S1A-H: Relative abundance of the top 10 fungal genera from annotated ASVs in the sample types and groups.

A: Asymptomatic

| Genus | Rel. abund. (%) |
|---------------------------------------|-----------------|
| <i>Neopestalotiopsis</i> | 8.01 |
| <i>Fusarium</i> | 7.06 |
| <i>Thielaviopsis</i> | 6.39 |
| <i>Trichoderma</i> | 6.01 |
| <i>Ascomycota_gen_Incertae_sedis</i> | 5.99 |
| <i>Capnodiales_gen_Incertae_sedis</i> | 2.91 |
| <i>Neoroussoella</i> | 2.87 |
| <i>Phyllosticta</i> | 2.84 |
| <i>Hypocreales_gen_Incertae_sedis</i> | 2.58 |
| <i>Acrocalymma</i> | 8.01 |
| Others | 47.33 |

B: Symptomatic

| Genus | Rel. abund. (%) |
|--|-----------------|
| <i>Peniophora</i> | 8.61 |
| <i>Trechisporales_gen_Incertae_sedis</i> | 8.54 |
| <i>Fusarium</i> | 7.60 |
| <i>Sporormiaceae_gen_Incertae_sedis</i> | 5.50 |
| <i>Chiangraiomycetes</i> | 5.40 |

| | |
|--|-------|
| <i>Thielaviopsis</i> | 4.12 |
| <i>Pleosporales_gen_Incertae_sedis</i> | 3.27 |
| <i>Ceramothyrium</i> | 3.15 |
| <i>Gongronella</i> | 2.69 |
| <i>Ascomycota_gen_Incertae_sedis</i> | 2.43 |
| <i>Others</i> | 48.69 |

C: ORLA

| Genus | Rel. abund. (%) |
|---------------------------------------|-----------------|
| <i>Neopestalotiopsis</i> | 21.04 |
| <i>Phyllosticta</i> | 7.60 |
| <i>Capnodiales_gen_Incertae_sedis</i> | 7.28 |
| <i>Acrocalymma</i> | 4.95 |
| <i>Ascomycota_gen_Incertae_sedis</i> | 3.75 |
| <i>Pyrenophaetopsis</i> | 3.47 |
| <i>Pseudopestalotiopsis</i> | 3.21 |
| <i>Cylindroaseptospora</i> | 2.70 |
| <i>Colletotrichum</i> | 2.57 |
| <i>Lasiodiplodia</i> | 2.53 |
| <i>Others</i> | 40.90 |

D: ORLS

| Genus | Rel. abund. (%) |
|---|-----------------|
| <i>Sporormiaceae_gen_Incertae_sedis</i> | 18.96 |
| <i>Ceramothyrium</i> | 10.93 |
| <i>Capnodiales_gen_Incertae_sedis</i> | 5.78 |
| <i>Neopestalotiopsis</i> | 5.39 |
| <i>Trichomerium</i> | 3.42 |
| <i>Oxydothis</i> | 3.38 |
| <i>Hypocreales_gen_Incertae_sedis</i> | 2.89 |
| <i>Ruinenia</i> | 2.74 |
| <i>Pleosporales_gen_Incertae_sedis</i> | 2.69 |
| <i>Acremonium</i> | 2.38 |
| <i>Others</i> | 41.44 |

E: ORRA

| Genus | Rel. abund. (%) |
|----------------------|-----------------|
| <i>Thielaviopsis</i> | 17.73 |
| <i>Trichoderma</i> | 14.93 |

| | |
|------------------------------------|-------|
| <i>Fusarium</i> | 14.09 |
| Ascomycota_gen_Incertae_sedis | 7.89 |
| <i>Talaromyces</i> | 5.28 |
| Delitschiaceae_gen_Incertae_sedis | 4.40 |
| Dothideomycetes_gen_Incertae_sedis | 3.34 |
| Pleosporales_gen_Incertae_sedis | 2.71 |
| Sordariales_gen_Incertae_sedis | 2.52 |
| <i>Acrocalymma</i> | 2.15 |
| Others | 24.96 |

F: ORRS

| Genus | Rel. abund. (%) |
|-----------------------------------|-----------------|
| Trechisporales_gen_Incertae_sedis | 16.90 |
| <i>Chiangraiomysces</i> | 14.87 |
| <i>Fusarium</i> | 14.82 |
| <i>Thielaviopsis</i> | 10.61 |
| Pleosporales_gen_Incertae_sedis | 5.33 |
| Nectriaceae_gen_Incertae_sedis | 3.10 |
| <i>Gongronella</i> | 2.91 |
| <i>Gibellulopsis</i> | 2.70 |
| Ascomycota_gen_Incertae_sedis | 2.52 |
| <i>Leptobacillium</i> | 2.49 |
| Others | 16.40 |

G: ORSA

| Genus | Rel. abund. (%) |
|---------------------------------|-----------------|
| <i>Neoroussella</i> | 5.97 |
| <i>Fusarium</i> | 4.06 |
| Ascomycota_gen_Incertae_sedis | 3.74 |
| Hypocreales_gen_Incertae_sedis | 3.66 |
| Trichoderma | 3.15 |
| Chaetomium | 2.62 |
| <i>Gibellulopsis</i> | 2.55 |
| <i>Thielaviopsis</i> | 2.36 |
| Pleosporales_gen_Incertae_sedis | 2.20 |
| Nectriaceae_gen_Incertae_sedis | 1.79 |
| Others | 67.90 |

H: ORSS

| Genus | Rel. abund. (%) |
|-------|-----------------|
|-------|-----------------|

| | |
|-------------------------------------|-------|
| Peniophora | 23.98 |
| Trechisporales_gen_Incertae_sedis | 6.91 |
| Fusarium | 6.10 |
| Gongronella | 4.62 |
| Ascomycota_gen_Incertae_sedis | 3.48 |
| Spiromastigaceae_gen_Incertae_sedis | 3.48 |
| Trichoderma | 3.17 |
| Talaromyces | 2.57 |
| Neoroussocella | 2.29 |
| Aspergillus | 2.08 |
| Others | 41.32 |

Sample types: Asymptomatic, Symptomatic; **Groups:** ORLA- Okomu/Ore asymptomatic leaf samples, ORLS- Okomu/Ore symptomatic leaf samples, ORRA- Okomu/Ore asymptomatic Root samples, ORRS- Okomu/Ore symptomatic root samples, ORSA- Okomu/Ore asymptomatic soil samples and ORSS- Okomu/Ore symptomatic soil samples

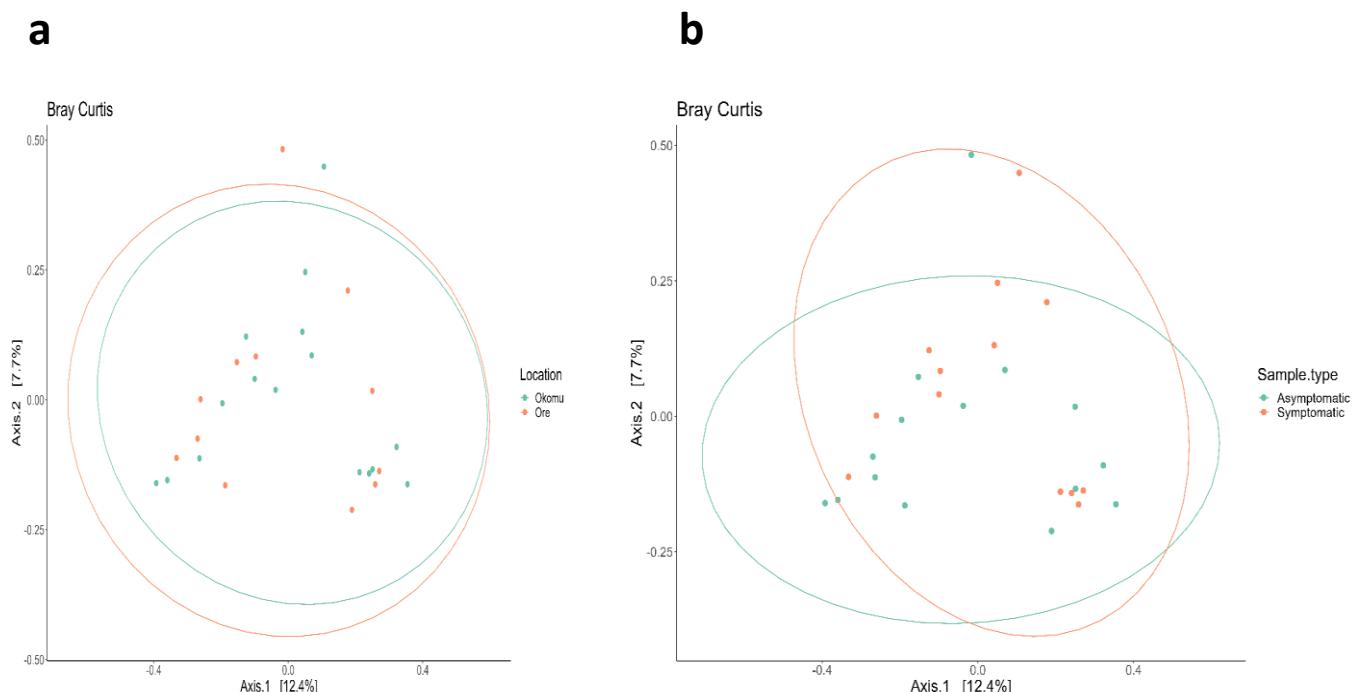


Fig. S4. Principal coordinate analysis (PCoA) based on the relative abundance of fungal ASVs. Sample categories are indicated with different colours according to (a) Location: Okomu (blue) and Ore (red) (b) Sample type: Asymptomatic (blue) and Symptomatic (red)