**Supplemental Table 4. Indicator taxa for combined substrate and host.** Up to 5 indicator taxa with FDR < 0.05 were determined with multipatt for each substrate-host combination. These taxa were identified with the CONSTAX2 classifier against the UNITE database.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Substrate** | **Host** | **OTU** | **FDR** | **CONSTAX2 Result** |
| **Epiphyte** | *Acer rubrum* | OTU\_2 | 0.011 | *Ampelomyces* sp. |
|  |  | OTU\_281 | 0.011 | *Ramularia* sp. |
|  |  | OTU\_191 | 0.017 | *Taphrina vestergrenii* |
|  |  | OTU\_149 | 0.017 | Pseudeurotiaceae sp. |
|  |  | OTU\_381 | 0.017 | *Taphrina* sp. |
|  | *Carya ovata* | OTU\_56 | 0.011 | *Golubevia pallescens* |
|  |  | OTU\_12 | 0.011 | *Erysiphe* sp. |
|  |  | OTU\_29 | 0.011 | *Exobasidium* sp. |
|  |  | OTU\_68 | 0.011 | *Epicoccum* sp. |
|  |  | OTU\_75 | 0.011 | Fungi sp*.* |
| **Endophyte** | *Acer rubrum* | OTU\_48 | 0.011 | *Phyllosticta minima* |
|  |  | OTU\_83 | 0.011 | *Seimatosporium* sp. |
|  |  | OTU\_20 | 0.011 | *Plagiostoma* sp. |
|  |  | OTU\_116 | 0.011 | *Angustimassarina acerina* |
|  |  | OTU\_461 | 0.017 | *Venturia* sp. |
|  | *Carya ovata* | OTU\_332 | 0.011 | *Sphaerulina* sp. |
|  |  | OTU\_270 | 0.023 | Ascomycota sp. |
|  |  | OTU\_3279 | 0.039 | *Sphaerulina* sp. |
|  |  | OTU\_359 | 0.04 | Mycosphaerellaceae sp. |
|  |  | OTU\_105 | 0.042 | *Sphaerulina* sp. |
| **Litter** | *Carya ovata* | OTU\_50 | 0.011 | Hypocreales sp. |
| **Soil** | *Carya ovata* | OTU\_2619 | 0.011 | *Trichoderma* sp. |
|  |  | OTU\_2124 | 0.03 | Fungi sp. |
|  |   | OTU\_54 | 0.04 | *Mortierella minutissima* |
|  |  | OTU\_893 | 0.048 | *Penicillium* sp. |