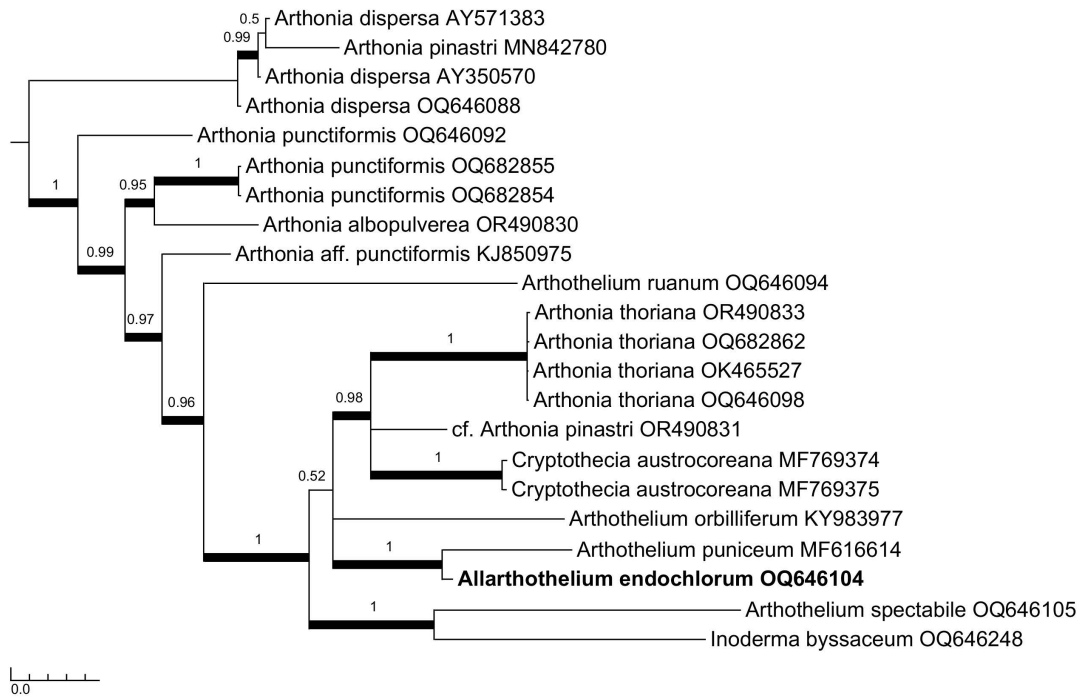**Vondrák J., Svoboda S., Malíček J., Šoun J., Košnar J., Svensson M., Timdal E., Machač J. & Palice Z. (2024) Combining environmental DNA data and taxonomic surveys provides an unprecedented understanding of lichen diversity and accelerates the discovery of new species. – Preslia 96: 351–417.**

**Supplementary Figs S1–S12.** Phylogenetic trees with the new species.

Supplementary Figure 1. MtSSU tree with *Allarthothelium endochlorum* and related species. GTR model with gamma distribution used as a model of sequence evolution. Tree constructed using Bayesian inference run for 89,000 generations.
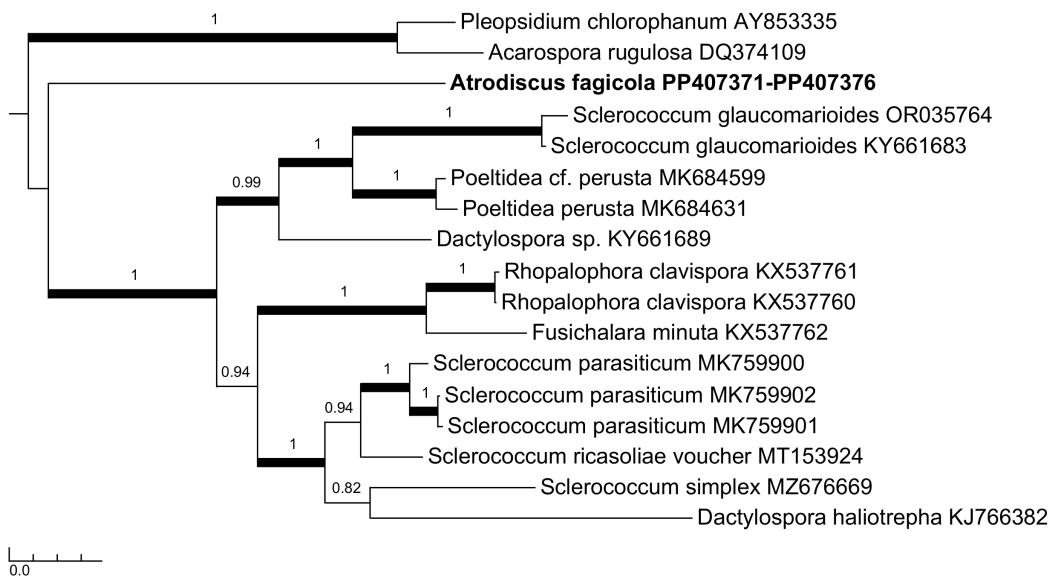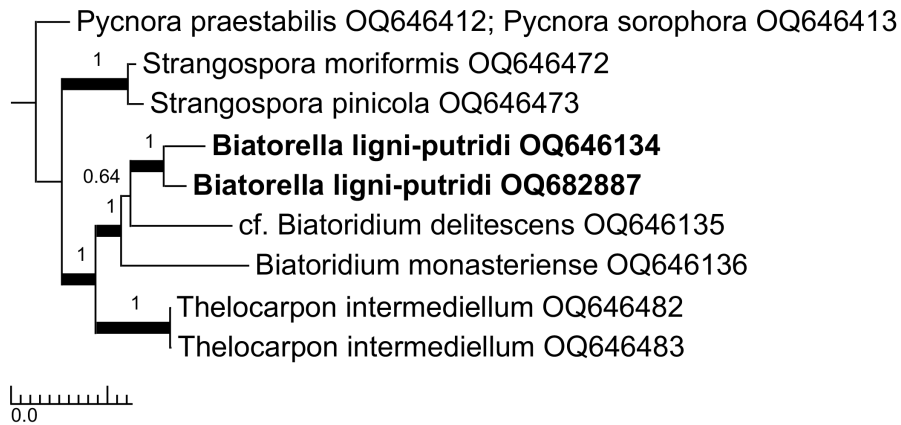

Supplementary Figure 2. MtSSU tree with *Atrodiscus fagicola* and related species. GTR model with gamma distribution used as a model of sequence evolution. Tree constructed using Bayesian inference run for 8,000 generations.
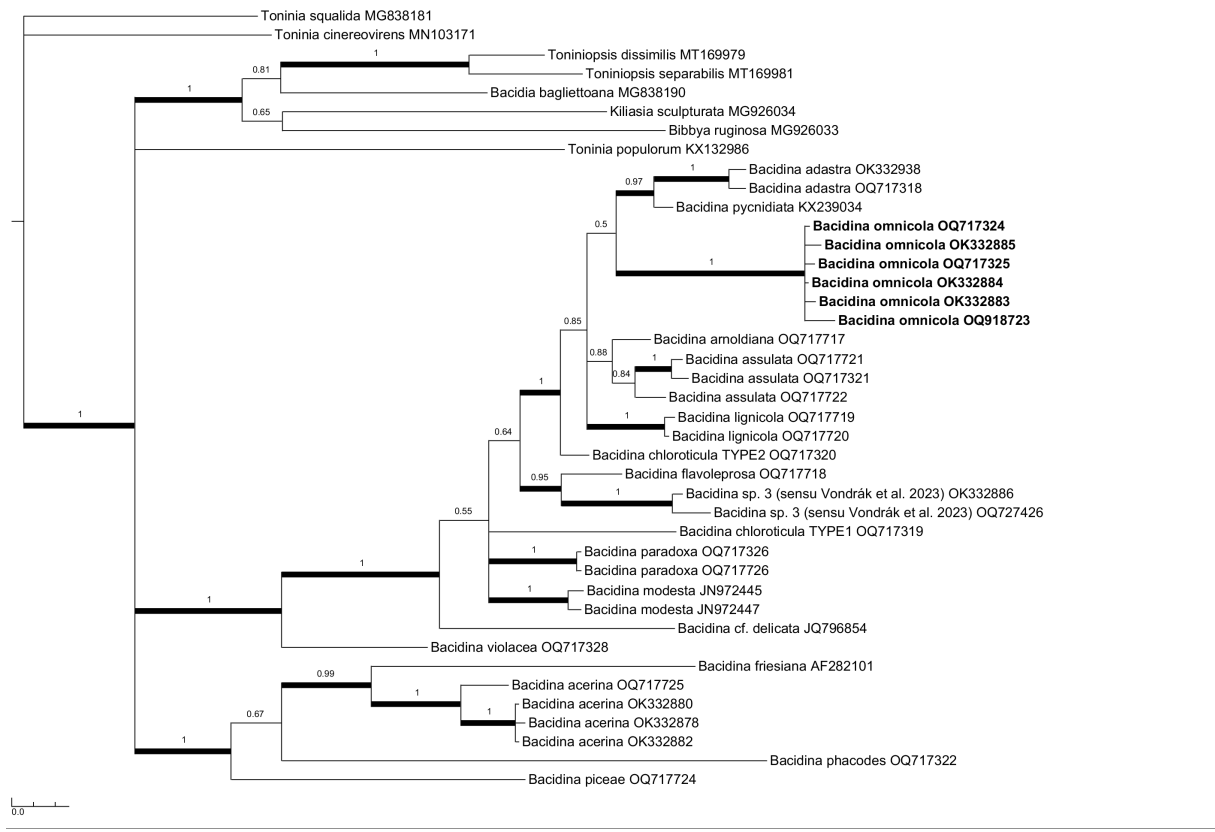
Supplementary Figure 3. ITS tree with *Bacidina omnicola* and related species. F80+I model with gamma distribution used as a model of sequence evolution. Tree constructed using Bayesian inference run for 8,000 generations.
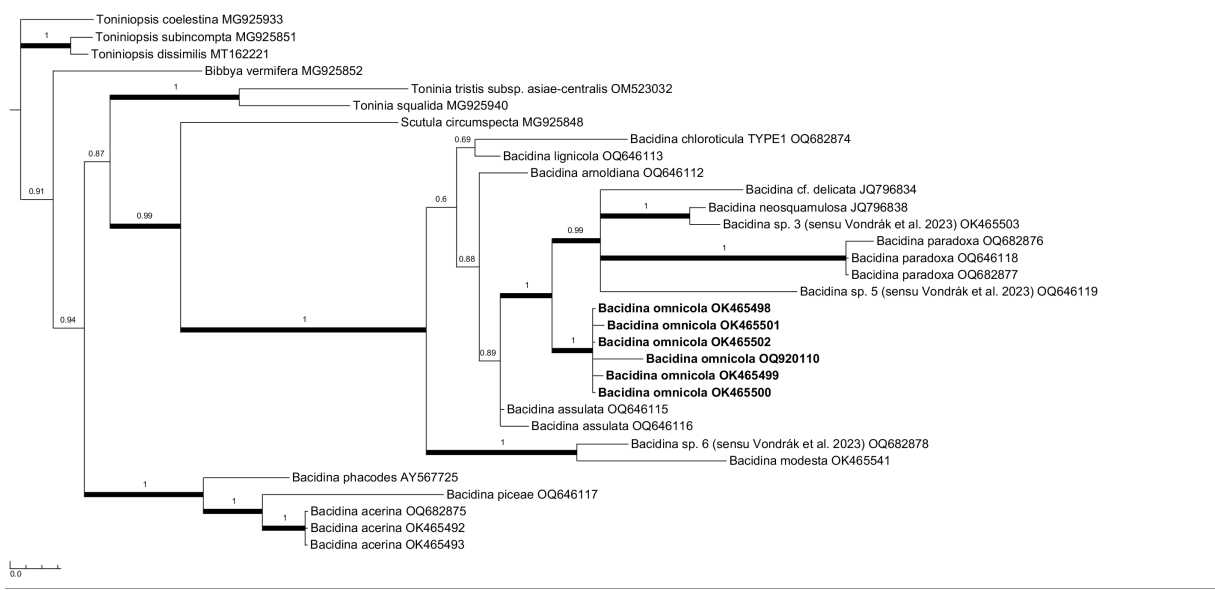
Supplementary Figure 4. MtSSU tree with *Bacidina omnicola* and related species. GTR model with gamma distribution used as a model of sequence evolution. Tree constructed using Bayesian inference run for 181,000 generations.
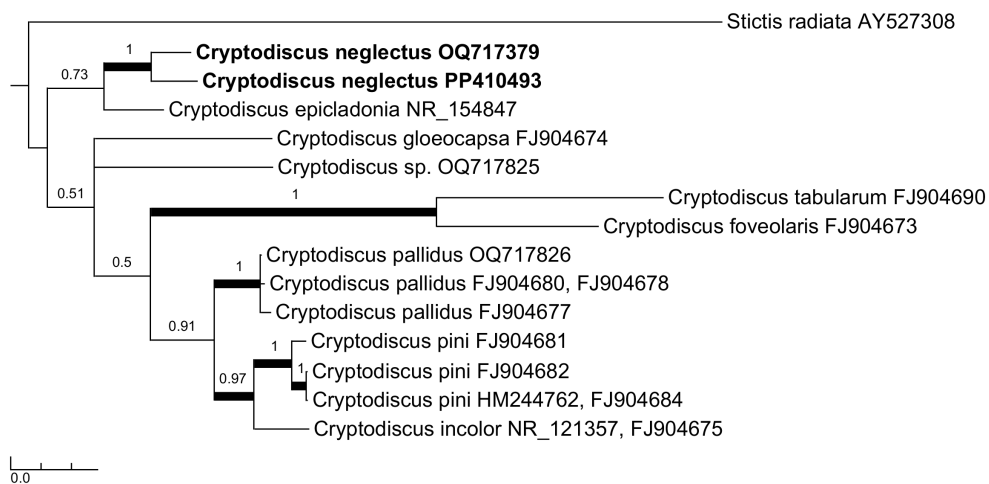
Pycnora praestabilis OQ646412; Pycnora sorophora OQ646413
Strangospora moriformis OQ646472
Strangospora pinicola OQ646473
Biatorella ligni-putridi OQ646134
Biatorella ligni-putridi OQ682887
cf. Biatoridium delitescens OQ646135
Biatoridium monasteriense OQ646136
Thelocarpon intermediellum OQ646482
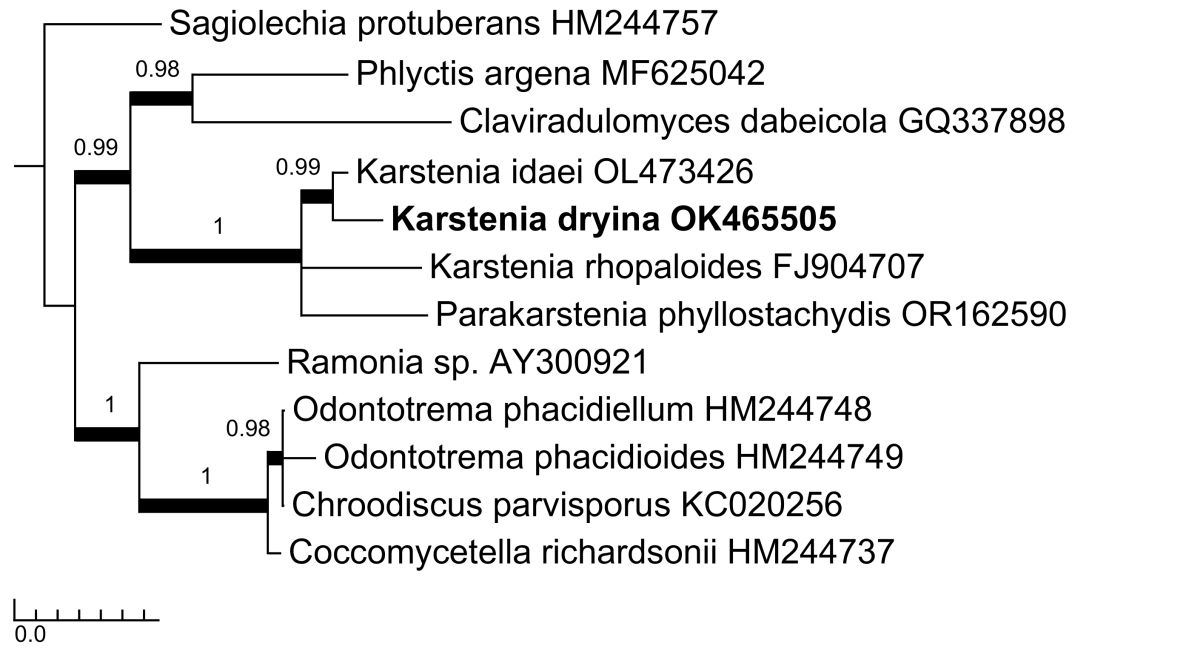Thelocarpon intermediellum OQ646483

0.0

Supplementary Figure 5. MtSSU tree with *Biatorella ligni-putridi* and related species. GTR model with gamma distribution used as a model of sequence evolution. Tree constructed using Bayesian inference run for 10,000 generations.

Stictis radiata AY527308
Cryptodiscus neglectus OQ717379
Cryptodiscus neglectus PP410493
Cryptodiscus epicladonia NR_154847
Cryptodiscus gloeocapsa FJ904674
Cryptodiscus sp. OQ717825
Cryptodiscus tabularum FJ904690
Cryptodiscus foveolaris FJ904673
Cryptodiscus pallidus OQ717826
Cryptodiscus pallidus FJ904680, FJ904678
Cryptodiscus pallidus FJ904677
Cryptodiscus pini FJ904681
Cryptodiscus pini FJ904682
Cryptodiscus pini HM244762, FJ904684
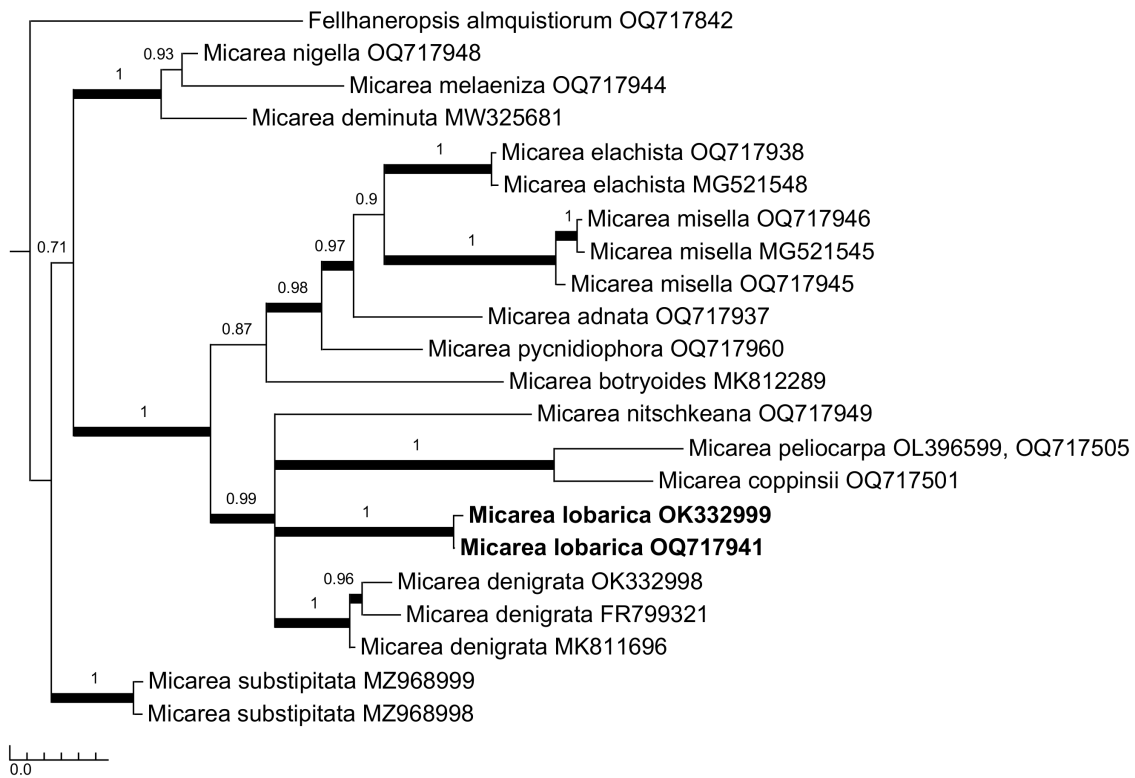Cryptodiscus incolor NR_121357, FJ904675

0.0

Supplementary Figure 6. ITS tree with *Cryptodiscus neglectus* and related species. GTR model with gamma distribution used as a model of sequence evolution. Tree constructed using Bayesian inference run for 146,000 generations.
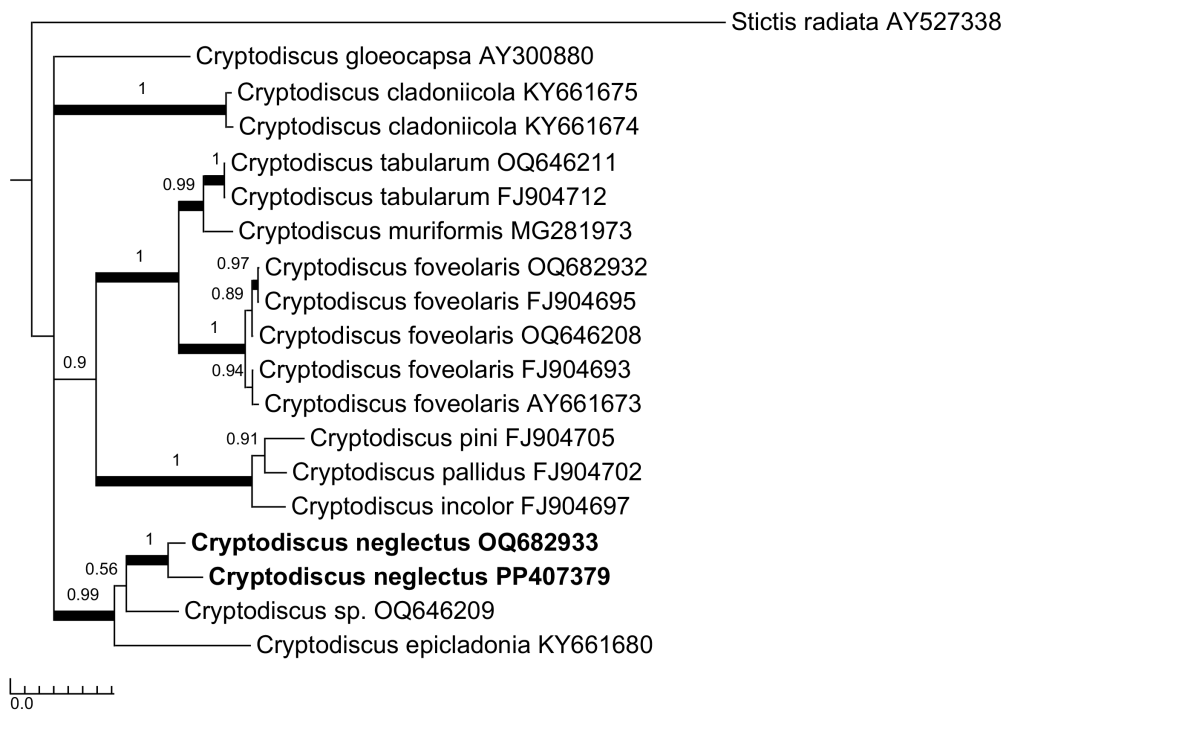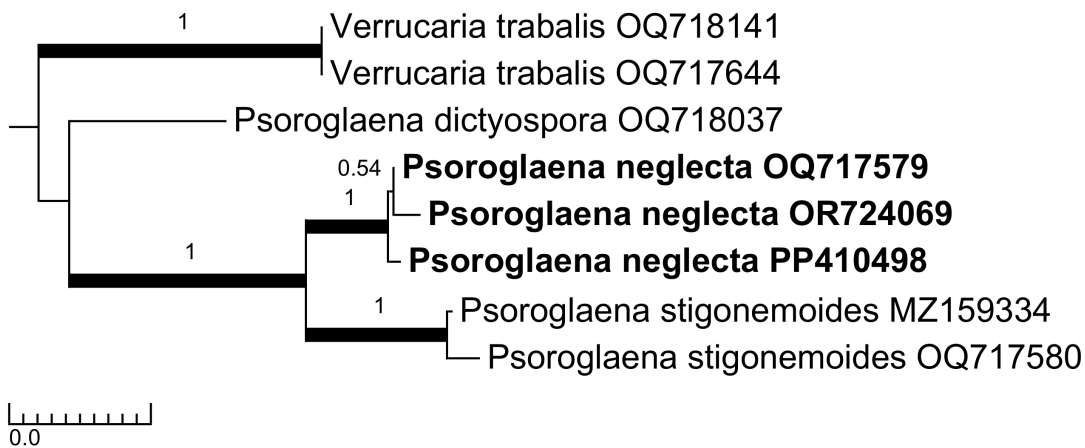
Supplementary Figure 7. MtSSU tree with *Cryptodiscus neglectus* and related species. GTR model with gamma distribution used as a model of sequence evolution. Tree constructed using Bayesian inference run for 104,000 generations.
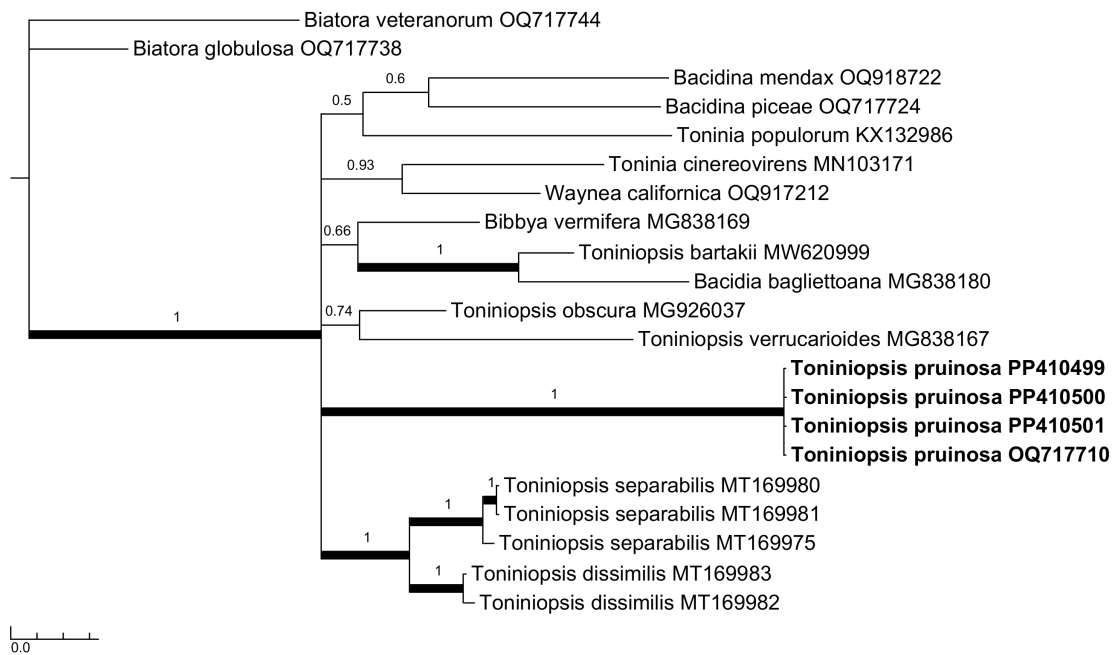

Supplementary Figure 8. MtSSU tree with *Karstenia dryina* and related species. GTR model with gamma distribution used as a model of sequence evolution. Tree constructed using Bayesian inference run for 18,000 generations.
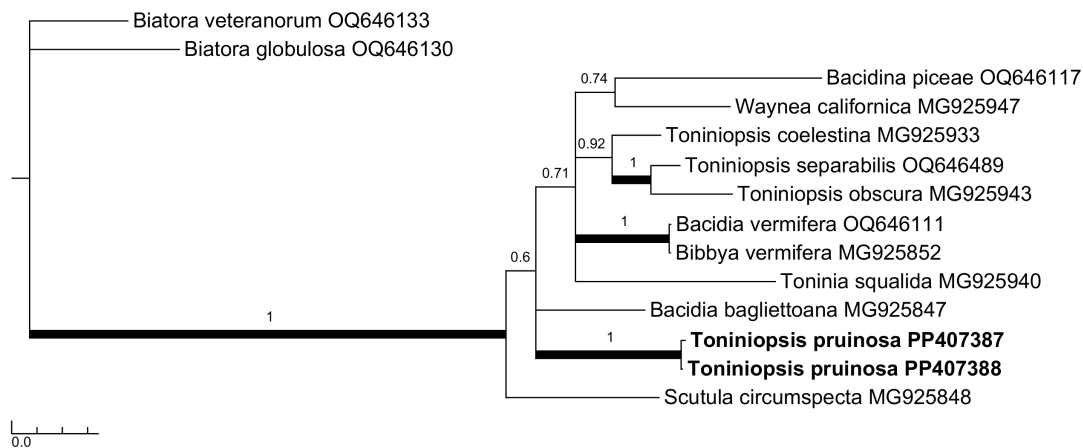
Supplementary Figure 9. ITS tree with *Micarea lobarica* and related species. GTR model with gamma distribution used as a model of sequence evolution. Tree constructed using Bayesian inference run for 78,000 generations.

Supplementary Figure 10. ITS tree with *Psoroglaena neglecta* and related species. HKY model with gamma distribution used as a model of sequence evolution. Tree constructed using Bayesian inference run for 1,000 generations.

Supplementary Figure 11. ITS tree with *Toniniopsis pruinosa* and related species. GTR model with gamma distribution used as a model of sequence evolution. Tree constructed using Bayesian inference run for 302,000 generations.

Supplementary Figure 12. MtSSU tree with *Toniniopsis pruinosa* and related species. GTR model with gamma distribution used as a model of sequence evolution. Tree constructed using Bayesian inference run for 159,000 generations.