Supplement 1.

Key to *Ganoderma* species

1. Species with perennial, astipitate fruitbodies; pileus non laccate .....2.
1. Species with annual to perennial fruitbodies, often with stipes; pileus laccate .....3.

2. Tube layers visibly separated with brown line of trama, older tubes filled with mycelium; crust on pileus surface thinner; basidiospore size 6.5–8.5 × 4.5–6 µm ……*Ganoderma applanatum*

2. Tube layers are not visibly separated, older tubes are not filled with mycelium; crust on pileus surface thickner; basidiospore size 8.6–13 × 5.5–9 µm……..…*Ganoderma adspersum*

3. Species with annual to perennial fruitbodies sometimes with rudimentary stipes; pileus surface exudes resinous substances, which melts in contact with flame of match and it creates smooth surface after getting solid again ..... 4.

3. Species with annual stipitate fruitbodies; pileus surface doesn't exude resinous substances.....5.

4. Light colored trama, cork color, resinous layer is continuous; fruitbodies sometimes with rudimentary stipes …..... *Ganoderma resinaceum*

4. Dark colored trama, resinous layer is not continuous; fruitbodies without rudimentary stipes..... *Ganoderma pfeifferi*

5. Coniferous tree as a host plant in majority of cases; pileus surface dark, burgundy brown color, almost black ……..... *Ganoderma carnosum*

5. Usually broadleaf tree as a host plant; pileus surface bright shiny with yellow tones, light reddish brown to dark reddish brown or mahogany …… *Ganoderma lucidum s.str.*

Trends in variables affecting *Ganoderma* samples temporal and spatial distribution, and *Ganoderma* species host specificity.

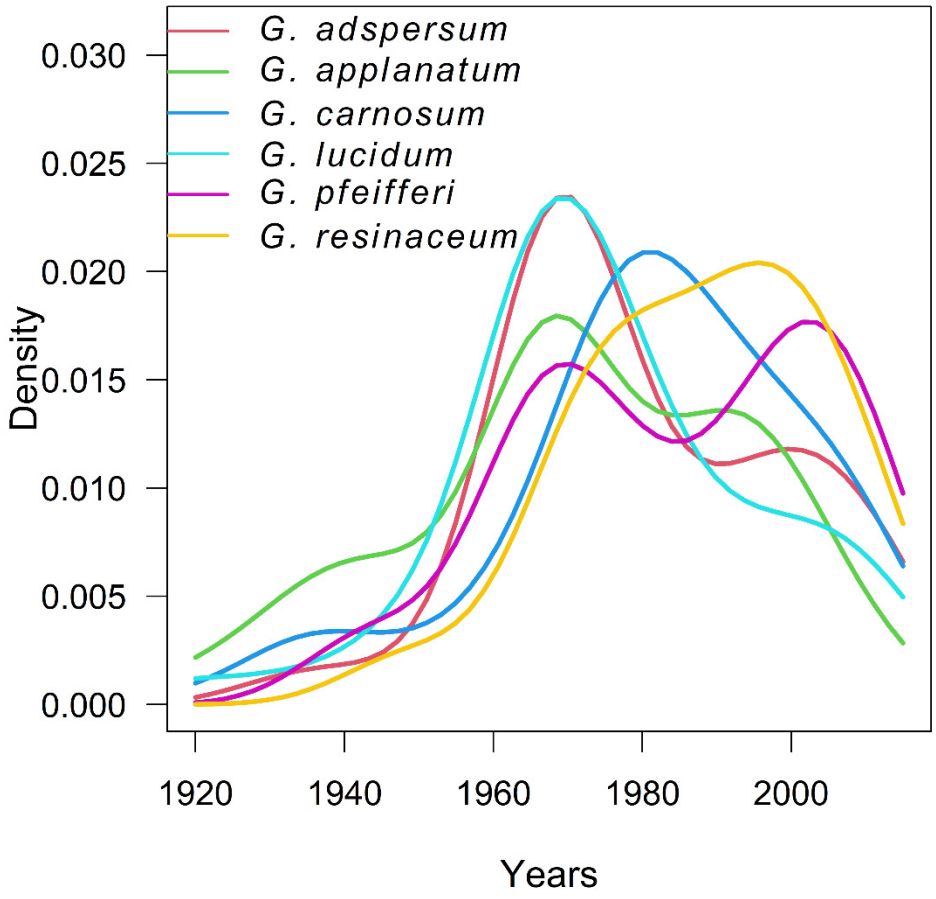

Figure S1. Temporal trends in *Ganoderma* species sampling. The sampling pattern of individual Ganoderma species during the years was very distinct ($P < 0.001$).

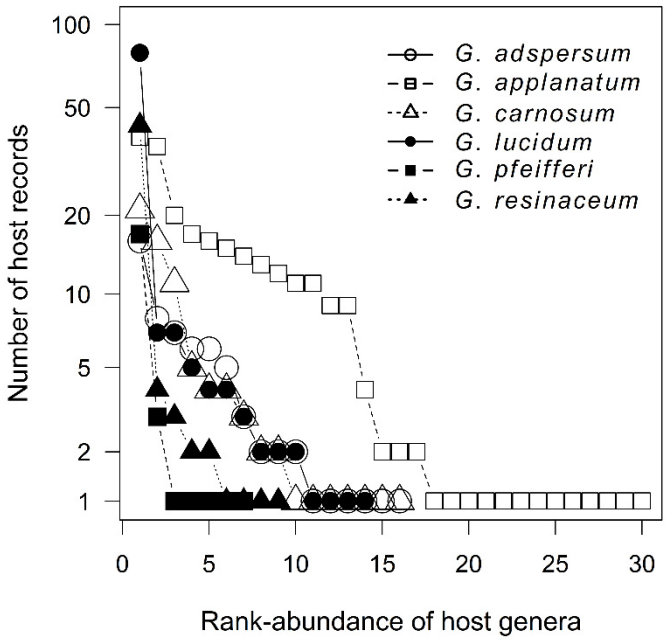

Figure S2. Whittaker rank-abundance plot for host tree genera of individual *Ganoderma* species

Propensity of Ganoderma species to parasitism – Other trends

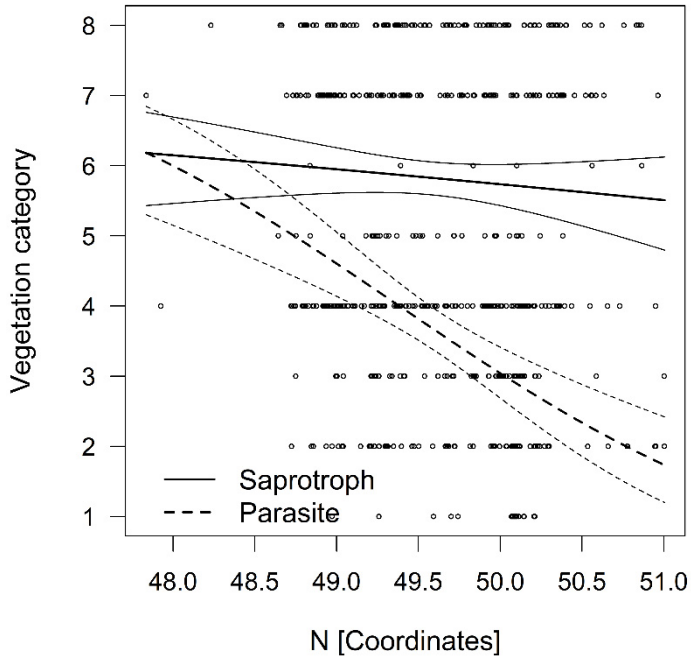

Figure S3. Average vegetation category along the latitudinal gradient for saprotrophic and parasitic *Ganoderma* samples. *Ganoderma* samples were sampled along latitudinal gradient in decreasing vegetation categories (df = 442, χ^2 = 11.70, P < 0.001) and parasitic *Ganoderma* samples are from lower vegetation categories than saprotrophic ones (df = 442, χ^2 = 93.29, P < 0.001). The slope of

decrease of vegetation category along latitudinal gradient differs strongly between parasitic and saprotrophic *Ganoderma* samples (df = 442, χ^2 = 10.13, *P* = 0.001), whereas there is strong relationship for parasitic ones, the saprotrophic ones decreases gently.

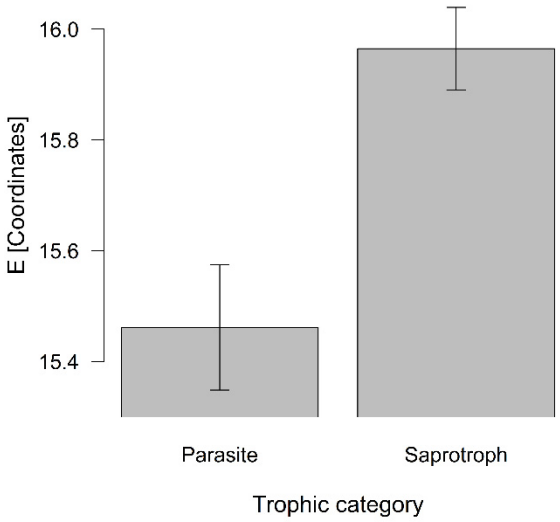

Figure S4. E coordinates for parasitic and saprotrophic trophic category (mean ± SE). Saprotrophic *Ganoderma* samples has in average higher east coordinates (they are shifted east), than parasitic *Ganoderma* samples (df = 444, F = 13.75, *P* < 0.001).

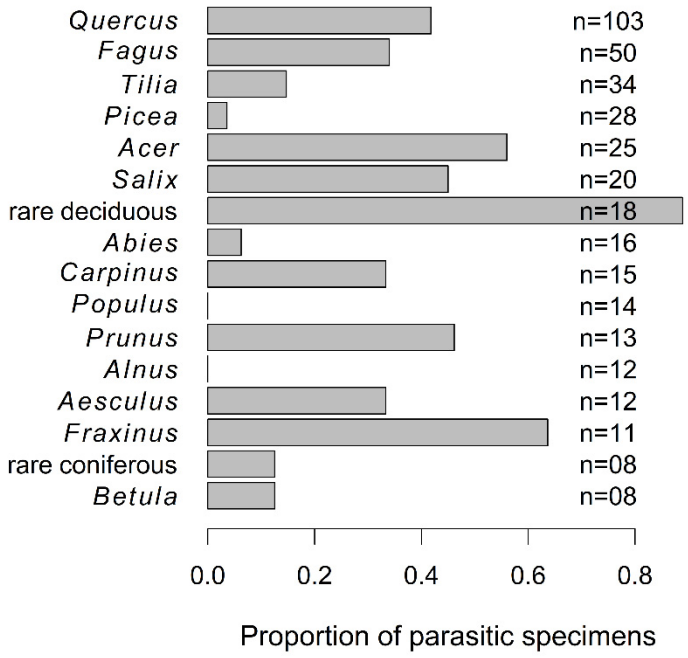

Figure S5. Proportion of parasitic specimens of *Ganoderma* sampled on individual host genera.