Supporting information for:

Drivers of the fungal spore bioaerosol budget: observational analysis and global modelling
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Table S1: global emissions, burden and lifetime for the population and statistical model for two sensitivity runs

<table>
<thead>
<tr>
<th>Emission scheme</th>
<th>Simulation</th>
<th>Emission (Tg year\textsuperscript{-1})</th>
<th>Burden (Gg)</th>
<th>Lifetime (days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population model</td>
<td>Dilution factor = 0.3</td>
<td>2.7</td>
<td>15.8</td>
<td>2.1</td>
</tr>
<tr>
<td>Statistical model</td>
<td>Dilution factor = 0.3</td>
<td>2.9</td>
<td>12.0</td>
<td>1.4</td>
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<tr>
<td>Population model</td>
<td>Rainout efficieny = 0.0</td>
<td>3.4</td>
<td>25.6</td>
<td>2.9</td>
</tr>
<tr>
<td>Statistical model</td>
<td>Rainout efficieny = 0.0</td>
<td>3.7</td>
<td>20.0</td>
<td>2.1</td>
</tr>
</tbody>
</table>
Figure S1: ratio of storage+entrainment vs. the net surface flux and vertical advection for different averaging times
Figure S2: relationship between spore counts and derived emissions for different land use types. Each point represents a daily spore count at a single AAAAI station.
Figure S3: sensitivity to chosen temperature threshold of modeled spore concentrations at the sites in Germany and Finland. No temperature threshold (top), threshold of 0°C (middle) and threshold of 5°C (bottom)