Supplement of

Representing surface heterogeneity in land–atmosphere coupling in E3SMv1 single-column model over ARM SGP during summertime

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Table S1: Subgrid patches and the corresponding weights within the ARM SGP grid cell at ne30 resolution.

<table>
<thead>
<tr>
<th>Landunit</th>
<th>Patch type</th>
<th>Weight_ne30 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetated</td>
<td>Bare ground</td>
<td>6.9</td>
</tr>
<tr>
<td></td>
<td>Needleleaf evergreen temperate tree</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td>Broadleaf deciduous temperate tree</td>
<td>6.1</td>
</tr>
<tr>
<td></td>
<td>C3 non-arctic grass</td>
<td>25.8</td>
</tr>
<tr>
<td></td>
<td>C4 grass</td>
<td>16.5</td>
</tr>
<tr>
<td></td>
<td>C3 crop</td>
<td>41.6</td>
</tr>
<tr>
<td>Lake</td>
<td>Lake</td>
<td>1.0</td>
</tr>
</tbody>
</table>
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