Appendix S2

Appendix S2. Outcrop area and sampled diversity of Karoo Basin theropcephalians and cynodonts.

<table>
<thead>
<tr>
<th>Karoo Biozone</th>
<th>Base</th>
<th>Top</th>
<th>Duration</th>
<th>Outcrop area (total) (km²)</th>
<th>Outcrop area (productive) (km²)</th>
<th># therocceph genera</th>
<th># cyno genera</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cynognathus AZ</td>
<td>248</td>
<td>241.2</td>
<td>6.8</td>
<td>11,196</td>
<td>5,488</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Lystrosaurus AZ</td>
<td>252.3</td>
<td>248</td>
<td>4.3</td>
<td>76,550</td>
<td>48,358</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Dicynodon AZ</td>
<td>255</td>
<td>252.3</td>
<td>2.7</td>
<td>41,113</td>
<td>20,322</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>Cistecephalus AZ</td>
<td>257</td>
<td>255</td>
<td>2.0</td>
<td>41,082</td>
<td>31,360</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Tropidostoma AZ</td>
<td>259.5</td>
<td>257</td>
<td>2.5</td>
<td>17,718</td>
<td>14,739</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Pristerognathus AZ</td>
<td>262</td>
<td>259.5</td>
<td>2.5</td>
<td>3,857</td>
<td>3,857</td>
<td>5</td>
<td>--</td>
</tr>
<tr>
<td>Tapinocephalus AZ</td>
<td>265.8</td>
<td>262</td>
<td>3.8</td>
<td>21,043</td>
<td>15,806</td>
<td>7</td>
<td>--</td>
</tr>
<tr>
<td>Eodicynodon AZ</td>
<td>268</td>
<td>265.8</td>
<td>2.2</td>
<td>1,286</td>
<td>1,066</td>
<td>2</td>
<td>--</td>
</tr>
</tbody>
</table>

Ma, millions of years ago (mega-annum); Myr, million years; dates are estimates based on Abdala and Ribeiro (2010), Smith et al. (2012), and Rubidge et al. (2013); AZ, Assemblage Zone;
Outcrop area estimates from King (1991);