<table>
<thead>
<tr>
<th>Character</th>
<th>Node/Clade</th>
<th>Longirostrine character?</th>
<th>Synapomorphy type</th>
<th>Thracosaurus isorhynchus</th>
<th>Thracosaurus neocarstanensis</th>
<th>Eothoracosaurus mississippiensis</th>
<th>Eosuchus minor</th>
<th>Eosuchus lerichei</th>
<th>Portugalosuchus azenhae</th>
<th>Eogavialis africanum</th>
<th>Argochampsa krebsi</th>
</tr>
</thead>
<tbody>
<tr>
<td>107-1</td>
<td>Gavialoidea</td>
<td>No</td>
<td>Exclusive</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>?</td>
</tr>
<tr>
<td>136-1</td>
<td>Gavialoidea</td>
<td>No</td>
<td>Ambiguous</td>
<td>0</td>
<td>?</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>144-1</td>
<td>Gavialoidea</td>
<td>Yes</td>
<td>Ambiguous</td>
<td>1</td>
<td>?</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>?</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>151-2</td>
<td>Gavialoidea</td>
<td>Yes</td>
<td>Ambiguous</td>
<td>2</td>
<td>?</td>
<td>2</td>
<td>2</td>
<td>?</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>154-0</td>
<td>Gavialoidea</td>
<td>No</td>
<td>Ambiguous</td>
<td>0</td>
<td>?</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>183-1</td>
<td>Gavialoidea</td>
<td>No</td>
<td>Ambiguous</td>
<td>?</td>
<td>?</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>?</td>
</tr>
<tr>
<td>191-0</td>
<td>Gavialoidea</td>
<td>No</td>
<td>Ambiguous</td>
<td>0</td>
<td>?</td>
<td>?</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>206-0</td>
<td>Gavialoidea</td>
<td>No</td>
<td>Exclusive</td>
<td>?</td>
<td>0</td>
<td>0</td>
<td>?</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>41-1</td>
<td>Gavialoidea</td>
<td>No</td>
<td>Ambiguous</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>?</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>50-1</td>
<td>Gavialoidea</td>
<td>Yes</td>
<td>Ambiguous</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>?</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>75-2</td>
<td>Gavialoidea</td>
<td>No</td>
<td>Ambiguous</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>46-1</td>
<td>Maomingosuchus + Gavialis</td>
<td>Yes</td>
<td>Shared</td>
<td>1</td>
<td>?</td>
<td>1</td>
<td>1</td>
<td>?</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>98-1</td>
<td>Maomingosuchus + Gavialis</td>
<td>No</td>
<td>Ambiguous</td>
<td>1</td>
<td>?</td>
<td>?</td>
<td>?</td>
<td>1</td>
<td>?</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>220-0</td>
<td>Maomingosuchus + Gavialis</td>
<td>Yes</td>
<td>Ambiguous</td>
<td>?</td>
<td>?</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>?</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>219-3</td>
<td>Gavialidae</td>
<td>Yes</td>
<td>Ambiguous</td>
<td>?</td>
<td>?</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>221-3</td>
<td>Gavialidae</td>
<td>Yes</td>
<td>Ambiguous</td>
<td>?</td>
<td>?</td>
<td>3</td>
<td>?</td>
<td>3</td>
<td>?</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>278-1</td>
<td>Toyotamaphimeia + Gavialis</td>
<td>No</td>
<td>Exclusive</td>
<td>1</td>
<td>1</td>
<td>?</td>
<td>1</td>
<td>0</td>
<td>?</td>
<td>1</td>
<td>?</td>
</tr>
<tr>
<td>193-1</td>
<td>Toyotamaphimeia + Gavialis</td>
<td>No</td>
<td>Ambiguous</td>
<td>1</td>
<td>1</td>
<td>?</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>247-0</td>
<td>Toyotamaphimeia + Gavialis</td>
<td>No</td>
<td>Ambiguous</td>
<td>?</td>
<td>?</td>
<td>0</td>
<td>?</td>
<td>0</td>
<td>?</td>
<td>?</td>
<td>0</td>
</tr>
<tr>
<td>276-1</td>
<td>Toyotamaphimeia + Gavialis</td>
<td>No</td>
<td>Ambiguous</td>
<td>1</td>
<td>1</td>
<td>?</td>
<td>1</td>
<td>?</td>
<td>?</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>325-0</td>
<td>Toyotamaphimeia + Gavialis</td>
<td>No</td>
<td>Shared</td>
<td>0</td>
<td>?</td>
<td>?</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>327-0</td>
<td>Toyotamaphimeia + Gavialis</td>
<td>No</td>
<td>Ambiguous</td>
<td>?</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>?</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>89-0</td>
<td>Toyotamaphimeia + Gavialis</td>
<td>No</td>
<td>Shared</td>
<td>0</td>
<td>?</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>149-1</td>
<td>Penghusuchus + Gavialis</td>
<td>Yes</td>
<td>Shared</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>90-0</td>
<td>'T'. cairense + Gavialis</td>
<td>No</td>
<td>Shared</td>
<td>0</td>
<td>?</td>
<td>?</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>147-7</td>
<td>'T'. cairense + Gavialis</td>
<td>Yes</td>
<td>Shared</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>?</td>
<td>?</td>
</tr>
</tbody>
</table>
Table 1: List of all synapomorphies for Gavialoidea and less inclusive clades that group 'thoracosaurus' and Portugalosuchus with other gavialoids. Red cells highlight character states that contrast with most or all other members of the respective node. Grey cells highlight missing data. Nodes described as *taxon x* + *taxon y*, indicate the least inclusive clade defined by those taxa. Underlined rows are exclusive synapomorphies that are discussed in the main text.

<table>
<thead>
<tr>
<th>Character</th>
<th>Node/Clade</th>
<th>Longirostrine character?</th>
<th>Synapomorphy type</th>
<th>Thoracosaurus isorhynchus</th>
<th>Thoracosaurus neocesariensis</th>
<th>Eothoracosaurus messapsipennis</th>
<th>Eosuchus minor</th>
<th>Eosuchus leichi</th>
<th>Portugalosuchus azenhae</th>
<th>Gavialis africanum</th>
<th>Argochampsa krebsi</th>
</tr>
</thead>
<tbody>
<tr>
<td>63-1</td>
<td><em>Portugalosuchus + Gavialis</em></td>
<td>No</td>
<td>Shared</td>
<td>0</td>
<td>?</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>?</td>
<td>0</td>
</tr>
<tr>
<td>91-1</td>
<td><em>Portugalosuchus + Gavialis</em></td>
<td>No</td>
<td>Shared</td>
<td>0</td>
<td>?</td>
<td>?</td>
<td>?</td>
<td>?</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>94-1</td>
<td><em>Portugalosuchus + Gavialis</em></td>
<td>No</td>
<td>Ambiguous</td>
<td>1</td>
<td>?</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>115-0</td>
<td><em>Portugalosuchus + Gavialis</em></td>
<td>No</td>
<td>Shared</td>
<td>?</td>
<td>?</td>
<td>0</td>
<td>?</td>
<td>1</td>
<td>?</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>158-1</td>
<td><em>Portugalosuchus + Gavialis</em></td>
<td>Yes</td>
<td>Exclusive</td>
<td>0</td>
<td>?</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>?</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>