Corrigendum to “Exposure dating of precariously balanced rocks” [Quaternary Geochronology 6 (2011) 295–303]

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We discovered an error in the computer code that carries out the geometric shielding calculations in this paper. The error concerned the summation of attenuation distances when a simulated cosmic ray path passed through multiple domains of soil or rock. This resulted in incorrect estimates of the parameters $S_{0,i}$ and $L_i$ for some samples in Table 1. These incorrect estimates were also displayed in Fig. 6. Revised versions of Table 1 and Fig. 6 appear below. This revision has a small effect on our estimate of the fragility age $t_{tip}$ for the “GV2” precariously balanced rock ($18.7 \pm 2.8$ ka as originally published). The corrected values for $S_{0,i}$ and $L_i$ shown above slightly improve the value of the misfit statistic $M$ (to 32 from 42 as originally published) and yield $t_{tip} = 18.5 \pm 2.0$ ka.

Table 1

<table>
<thead>
<tr>
<th>Sample name</th>
<th>Distance below PBR top (zi cm)</th>
<th>Sample thickness (cm)</th>
<th>$^{10}$Be a (10$^3$ atoms g$^{-1}$)</th>
<th>$S_{0,i}$ (g cm$^{-2}$)</th>
<th>$L_i$ (cm a$^{-1}$)</th>
<th>Assumed $\varepsilon_{s,i}$ (cm a$^{-1}$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GV2-3</td>
<td>0</td>
<td>4.5</td>
<td>688 ± 16</td>
<td>0.96</td>
<td>160</td>
<td>2 × 10$^{-4}$</td>
</tr>
<tr>
<td>GV2-2</td>
<td>69</td>
<td>4</td>
<td>410.3 ± 6.7</td>
<td>0.90</td>
<td>171</td>
<td>0</td>
</tr>
<tr>
<td>GV2-4</td>
<td>117</td>
<td>3.5</td>
<td>207.6 ± 4.4</td>
<td>0.60</td>
<td>225</td>
<td>0</td>
</tr>
<tr>
<td>GV2-1</td>
<td>169</td>
<td>5</td>
<td>163.3 ± 3.8</td>
<td>0.50</td>
<td>223</td>
<td>0</td>
</tr>
</tbody>
</table>

a Normalized to the isotope ratio standards of Nishiizumi et al. (2007).

Fig. 6. Exponential fits to numerical calculations of the shielding factor for samples below the PBR top as a function of soil depth above the sample location. The symbols are the results of the Monte Carlo integration; the lines are given by Equation (6) with the parameters from Table 1.