

Table S7. The climatic parameters for localities of *Strauchbufo raddei*. Present time localities (n = 713). Pleistocene (Europe) is the mid-Pleistocene European fossil records (n = 6). Pleistocene (Mongolia) is undetermined toads from Mongolia (n = 1). Significant differences ($p < 0.05$) between current and the mid-Pleistocene (for European fossil records) climatic parameters are underlined.

| Bioclimatic variables | Present time | | Pleistocene (Europe) | | Pleistocene (Mongolia) | Sheffe test (df = 717) | |
|--|------------------|------------|----------------------|-------------|------------------------|------------------------|------------|
| | Mean \pm SD | Range | Mean \pm SD | Range | | p-value | Error (MS) |
| Annual mean temperature (°C) | 2.0 \pm 3.1 | -8.7-15.2 | 7.1 \pm 0.7 | 6.2-8.0 | 0.6 | <u>0.00007</u> | 944.5 |
| Temperature seasonality (CV) | 13668 \pm 1418 | 8343-17053 | 12395 \pm 552 | 11602-13024 | 18574 | <u>0.02827</u> | 1999000.0 |
| Mean temperature of wettest quarter (°C) | 19.1 \pm 2.4 | 3.2-26.7 | 21.4 \pm 0.5 | 20.8-22.2 | 23.4 | <u>0.02069</u> | 589.6 |
| Mean temperature of driest quarter (°C) | -14.8 \pm 4.7 | -23.9-1.4 | -2.3 \pm 2.1 | -5.1-0.3 | -17.8 | <u>0</u> | 2199.5 |
| Mean temperature of warmest quarter (°C) | 19.6 \pm 2.3 | 3.2-27.4 | 22.9 \pm 0.5 | 22.3-23.7 | 23.4 | <u>0.00072</u> | 529.6 |
| Mean temperature of coldest quarter (°C) | -17.8 \pm 4.6 | -27.1-1.4 | -7.0 \pm 1.3 | -8.3--5.5 | -22.0 | <u>0</u> | 2116.6 |
| Annual precipitation (mm) | 346 \pm 191 | 41-1299 | 531 \pm 39 | 478-596 | 112 | <u>0.01780</u> | 36088.0 |
| Precipitation of wettest month (mm) | 88 \pm 42 | 14-393 | 55 \pm 4 | 50-61 | 29 | 0.05394 | 1777.3 |
| Precipitation of driest month (mm) | 4 \pm 4 | 0-22 | 25 \pm 3 | 21-30 | 0 | <u>0</u> | 13.8 |
| Precipitation seasonality (CV) | 103 \pm 15 | 41-132 | 21 \pm 1 | 20-23 | 89 | <u>0</u> | 237.7 |
| Precipitation of wettest quarter (mm) | 243 \pm 118 | 35-1031 | 155 \pm 12 | 142-177 | 68 | 0.06947 | 13962.0 |
| Precipitation of driest quarter (mm) | 12 \pm 12 | 0-67 | 91 \pm 8 | 81-104 | 2 | <u>0</u> | 140.2 |
| Precipitation of warmest quarter (mm) | 228 \pm 114 | 35-1031 | 150 \pm 13 | 137-173 | 68 | 0.09150 | 12837.0 |
| Precipitation of coldest quarter (mm) | 16 \pm 14 | 0-87 | 118 \pm 10 | 103-131 | 4 | <u>0</u> | 200.4 |