**Supplementary file 2**

**Supplementary file 2a.** Linear measurements obtained for each specimen extracted either by landmark positioning in 3D digital models or by direct caliper measurements (illustrated in Figure 2).

**I) Humerus length**

Landmark 1 - Midpoint of the intertubercular groove

Landmark 2 - Distal end of the trochlea

**II) Humerus proximal width**

Landmark 3 - Right edge just above the neck of the humerus

Landmark 4 - Left edge just above the neck of the humerus

**III) Humerus mid shaft width**

Landmark 5 - Right edge of central axis in anterior view

Landmark 6 - Left edge of central axis in anterior view

**IV) Humerus distal width**

Landmark 7 - Right edge of lateral epicondyle

Landmark 8 - Left edge of medial epicondyle

**V) Humerus height**

Landmark 9 - Right edge of central axis in lateral view

Landmark 10 - Left edge of central axis in lateral view

**VI) Radius length**

Landmark 11 – Sulcus in the radius head

Landmark 12 – Distal end of styloid process

**VII) Radius proximal width**

Landmark 13 – Rightest edge under epiphysis suture of radius head

Landmark 14 – Leftist edge under epiphysis suture of radius head

**VIII)** **Radius mid shaft width**

Landmark 15 - Right edge of central axis in anterior view

Landmark 16 - Left edge of central axis in anterior view

**IX)** **Radius distal width**

Landmark 17 – Rightest edge above epiphysis suture of distal radius

Landmark 18 – Leftist edge above epiphysis suture of distal radius

**X) Radius height**

Landmark 9 - Right edge of central axis in lateral view

Landmark 10 - Left edge of central axis in lateral view

**XI)** **Third metacarpal length**

Landmark 21 – Sulcus of articulation with magnum carpal

Landmark 22 – Proximal-most tip of epiphysis

**XII)** **Third metacarpal proximal width**

Landmark 23 – Rightest edge under the suture of the proximal epiphysis

Landmark 24 – Leftist edge under the suture of the proximal epiphysis

**XIII) Third metacarpal mid shaft width**

Landmark 25 - Right edge of central axis in dorsal view

Landmark 26 - Left edge of central axis in dorsal view

**XIV)** **Third metacarpal distal width**

Landmark 27 – Rightest edge above distal epiphysis suture

Landmark 28 – Leftist edge above distal epiphysis suture

**XV) Third metacarpal height**

Landmark 29 - Right edge of central axis in lateral view

Landmark 30 - Left edge of central axis in lateral view

**XVI)** **Digit III phalanx I length**

Landmark 31 – Sulcus of articulation with third metacarpal

Landmark 32 – Sulcus of articulation with second phalanx

**XVII) Digit III phalanx proximal width**

Landmark 23 – Rightest edge under the suture of the distal epiphysis

Landmark 24 – Leftist edge under the suture of the distal epiphysis

**XVIII) Digit III phalanx mid shaft width**

Landmark 29 - Right edge of central axis in dorsal view

Landmark 30 - Left edge of central axis in dorsal view

**XIX)** **Digit III phalanx distal width**

Landmark 37 – Rightest edge above distal epiphysis suture

Landmark 38 – Leftist edge above distal epiphysis suture

**XX)** **Digit III phalanx height**

Landmark 39 - Right edge of central axis in lateral view

Landmark 40 - Left edge of central axis in lateral view

**Supplementary file 2b.** Fits of linear models of evolution for each bone, highlighting in bold the best model fitted according to generalized information criterion (GIC) and loglikelihood (logLik). σ² = mean evolutionary rate, α = attraction toward optimum, stat.var. = mean stationary variance.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Best-fit model rank** | **GIC** | **lnL** | **σ²** | **α** | **stat. var.** |
| **Humerus** | **OU** | **-3494.708** | **1796.783** | **1.59E-03** | **0.020** | **0.039** |
| BM | -3158.830 | 1647.660 | 1.13E-03 | - | - |
| EB | -3156.829 | 1647.660 | 1.13E-03 | - | - |
| **Radius** | **OU** | **-3244.176** | **1660.549** | **1.83E-03** | **0.022** | **0.041** |
| BM | -2374.789 | 1239.853 | 1.28E-03 | - | - |
| EB | -2845.109 | 1468.898 | 1.28E-03 | - | - |
| **Metacarpal** | **OU** | **-2645.917** | **1382.228** | **2.02E-03** | **0.017** | **0.060** |
| BM | -2374.789 | 1239.853 | 1.49E-03 | - | - |
| EB | -2372.786 | 1239.851 | 1.49E-03 | - | - |
| **Phalanx** | **OU** | **-2767.643** | **1444.173** | **2.70E-03** | **0.024** | **0.055** |
| BM | -2333.077 | 1227.580 | 1.64E-03 | - | - |
| EB | -2331.071 | 1227.576 | 1.64E-03 | - | - |

**Supplementary file 2c.** Empirical values from PGLS regression computing for body mass in the geometric means.



**Supplementary file 2d.** Empirical values from PGLS regression without body mass in the geometric means.

