Online Supplemental Material 1**:** Skeletal morphometrics taken for mouse specimens.

\* denotes skeletal traits measured with calipers

|  |  |
| --- | --- |
| **Skeletal Measurement** | **Definition and Functional Significance** |
| Femur Length | Dorsal tip of the femoral head to the distal most end of the medial condyle  |
| Femoral Head Diameter | Medial-lateral width of the femoral head  |
| Femoral Width at 3rd Trochanter | Breadth of the 3rd trochanter at the widest point  |
| Femoral Distal Width | Breadth of the distal femur across the medial and lateral epicondyles  |
| Femoral Greater Trochanter Breadth | Medial-lateral width of the greater trochanter on the femur |
| Femoral Mid-shaft Diameter | Medial-lateral width at the mid-point of the femur shaft |
| Femoral Head to 3rd Trochanter Muscle Scar | Dorsal tip of the femoral head to the distalmost end of the 3rd trochanter muscle scar \* |
| Femoral Greater Trochanter Length | Height of the greater trochanter on the femur \* |
| Femoral Mass | Mass of the femur |
| Tibia Length | Superior articular surface of the lateral condyle to the tip of the medial malleolus  |
| Tibial Proximal Width | Greatest medio-lateral distance across the proximal end of the tibia, includes spike on the fibula) |
| Tibia-fibula Distal Width  | Greatest medial-lateral width at the distal end of the tibia  |
| Tibia-fibula Mid-Shaft Diameter | Medial-lateral width at the mid-point of the tibia-fibula shaft |
| Tibia-fibula Mass | Mass of the tibia-fibula |
| 3rd Metatarsal Length | Greatest length of the 3rd metatarsal (not including phalanges and tarsals) |
| Calcaneum Length | Tip of the calcaneum heel to the articulation point \* |
| Pelvis Mass | Mass of the pelvis  |
| Pelvis Length | Ramus of ischium to the most proximal end of iliac crest  |
| Lower Ilium Length  | Lower end of the proximal ilium to the most lateral tip of the ilio-pectineal eminence  |
| Least Distal Width of Ilium  | Smallest breadth at the distal end of the ilium  |
| Greatest Proximal Width of Ilium | Greatest medial-lateral width at the proximal end of the ilium  |
| Ischium Length | Most Lateral point of the ischium to the acetabulum  |
| Greatest Distal Width of Ischium  | Breadth of the ischium from the most lateral point of the ischium tuberosity to the obturator foramen |
| Pubis Length  | Most lateral point of the descending ramus of the pubis to the obturator foramen |
| Least Width of Pubis  | Smallest breadth of the pubis  |
| Scapula Length | Midpoint of scapular spine to the acromion process  |
| Scapula Width | Greatest breadth of the scapula blade across the superior and inferior angles |
| Humerus Length | Humerus Head to the trochlea  |
| Humerus Head Width | Medial-lateral diameter of the humerus head  |
| Humerus Distal Width | Breadth of the distal humerus across the medial and lateral epicondyles  |
| Humerus Mid-Shaft Diameter | Medial-lateral width at the mid-point of the humerus shaft |
| Humerus Mass | Mass of the humerus |
| Ulna Length | Growth plate on the olecranon to the styloid process |
| Olecranon Length | Growth plate on the olecranon to the distal end of the olecranon process |
| Radius Length | Radial head to the styloid process |
| Styloid Width | Greatest medial-lateral width at the distal end of the radius and ulna  |
| Ulna Mid-Shaft Diameter | Medial-lateral width at the mid-point of the ulna shaft |
| Metacarpal Length | Greatest length of the 3rd metacarpal (not including phalanges and carpals) |