## Supplementary C Identification results of Caprinae specimens based on size and morphological criteria

**SC**=Surface condition:

1: surface of the bone smooth to lightly eroded with cut marks can be observed;

2: most of the surface lost and normal cut marks cannot be seen apart from very large ones (average);

3: the bone appears porous and amorphous (poor).

Burning:

0: no traces of burning were observed

1: lightly burnt appearing light traces of burning

2: medium burnt appearing charred or carbonized

3: heavily burnt appearing grey and calcinations

P=*Pseudois*, Ch=*C. hircus,* A=Antilopinae, Oa=*O. ammon,* O=*O. aries*, N=*Naemorhedus*, Cpc=*Capricornis*

Table C.1 Identification results of Caprinae humeri specimens based on size and morphological criteria. Size and C1-C4 refer to the criteria described in Wang et al. 2020, Fig 2 & Fig 8. The other criteria follow Boessneck et al., 1964, Fig 28, 29, Zeder and Lapham, 2010, Fig 1; Götze 1998: 87, Fig. 49; Helmer & Rocheteau 1994, Fig 4D, Fig 6; and the footnotes below.

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| **Element** | **Specimen** | **SC** | **Burning** | **Side** | **Size** | **C1** | **C2** | **C3** | **C4** | **Mediodistal margin (medial view)\*** | **Laterodistal margin (lateral view)\*** | **Epicondylus medialis (posterior view)\*** | **Element ID** |
| **distal humerus** | 2012CXIT0103② | 1 | 0 | R | P, Ch, O, N | P, Ch, Oa, O, Cpc, N, A | P, Ch, Oa, O, Cpc, N, A | P, Ch, Cpc, N | P, Ch, Oa, O, Cpc, N, A | P, Ch | P, Ch, N, Cpc | P, O | P |
| 2012CXIT0202② | 1 | 0 | R | P, Ch, O, N | P, Ch, Oa, O, Cpc, N, A | P, Ch, Oa, O, Cpc, N, A | P, Ch, Cpc, N | P, Ch, Oa, O, Cpc, N, A | N, P, O, Oa | - | N, O, P | P |
| 2012CXIIIT0206③ | 3 | 2 | L | P, Ch, O, N | P, Ch, Oa, O, Cpc, N, A | P, Ch, Oa, O, Cpc, N, A | P, Ch, Oa, O, Cpc, N | P, Ch, Oa, O, Cpc, N, A | - | - | - | P/Ch/O/N |
| 2012CXIH2 | 2 | 0 | L | P, Ch, O, N | P, Ch, Oa, O, Cpc, N, A | P, Ch, Oa, O, Cpc, N, A | P, Ch, Cpc, N | P, Ch, Oa, O, Cpc, N, A | P, O, Oa | P, Ch, N, Cpc | P, O | P |

Table C.2 Identification results of Caprinae radius specimens based on size and morphological criteria. Size and other criteria refer to those described in Wang et al. 2020, Appendix S5, Fig S5.2A; Boessneck et al., 1964, Fig 31; Zeder and Lapham, 2010, Fig 2.

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| **Element** | **Specimen** | **SC** | **Burning** | **Side** | **Size** | **Lateral protuberance** | **Lip on the medial margin** | **Palmar edge of the caput radii** | **Ulna notch** | **The medial margin of the proximal articular surface** | **Element ID** |
| **radius** | 2012CXIT0102②UF1 | 2 | 0 | L | P, Ch, O | P, Ch, N | O, Oa, P, Ch, N | O, Oa, P | Oa, P, Ch | P, Ch | P |
| LD035 | 2 | 0 | R | P, N, Ch, O, Oa | O, Oa | - | O, Oa, Ch, P | O, Oa, P, A | - | O/Oa |
| LD040 | 2 | 0 | R | P, Ch, O | - | O, Oa, P, Ch, N | - | - | P, Ch | P/Ch |

Table C.3 Identification results of Caprinae astraglus specimens based on size and morphological criteria, which refers to those described in Boessneck et al., 1964, Fig 58-62; Zeder and Lapham, 2010, Fig 6, and the notes below.

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| **Element** | **Specimen** | **SC** | **Burning** | **Side** | **Size** | **medial articular ridge at dorsal view\*** | **Distal articular surface at lateral aspect\*** | **Proximo-plantar projection of the medial articular ridge\*** | **projection of medial articular ridge in plantar aspect\*** | **Element ID** |
| **astraglus** | LD001 | 1 | 0 | L | O, Ch, A | O, Cpc | O, Oa, P | O, Oa | O, Oa, N, P | O |

Table C.4 Identification results of Caprinae tibia specimens based on size and morphological criteria

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| **Element** | **Specimen** | **SC** | **Burning** | **Side** | **Size** | **Orientation of the dorsal surface located proximally of the distal articulation** | ***Sulcus malleolaris*** | **dorsomedial process of the distal articulation** | **Element ID** |
| **tibia** | LD042 | 1 | 0 | L | P, N, Ch, O | O/P | O, N | O, P, Ch, Cpc | O |

Table C.5 Identification results of Caprinae phalanx 1 specimens based on size and morphological criteria, which refer to those described in Boessneck et al., 1964: 122, Fig 75-76; Zeder and Lapham, 2010, Fig 8, Götze 1998: 158, Fig. 103-105; and Wang et al. 2020, Appendix S5, Fig S5.5, Table S5.5.

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| **Element** | **Specimen** | **SC** | **Burning** | **Size** | **peripheral articulation on the proximal end** | **The groove between the peripheral and axial articulation of the proximal end** | **The originating points for ligament on the posterior side toward the distal end of the bone** | **The posterior edge of the distal articular surface** | **Shape of the proximal articular surface** | **Element ID** |
| **phalanx 1** | KD003 | 1 | 0 | N, O, Ch | Ch, O, Oa, P, N | Ch, O, Oa, P, N | Ch, O, Oa, P, N | O, Oa, P, N | A,O,P,C | O |
| **phalanx 1** | LD041 | 2 | 2 | O, Ch, P, N | Ch, O, Oa, P, N | Ch, O, Oa, P, N | Ch, O, Oa, P，N | O, Oa, P, N | A,O,P,C | O/P |

Table C.6 Identification results of Capriane phalanx 3 specimens based on size and morphological criteria, which refer to those described in Boessneck et al., 1964: 124, Fig. 79-80; Götze 1998: 158, Fig. 112-114.

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| **Element** | **Specimen** | **SC** | **Burning** | **Size** | **Processus extensorius** | **Shape of the sole surface** | **Shape from the side view** | **Element ID** |
| **phalanx 3** | KD001 | 1 | 0 | N, O, Ch | O, Oa, P | O, Oa, P | O, Oa, P | O |
| **phalanx 3** | KD002 | 1 | 0 | N, O, Ch | O, Oa, P | O, Oa, P | O, Oa, P | O |

Table C.7 Identification results of Caprinae scapula specimen based on size and morphological criteria, which refer to those described in Boessneck et al., 1964: 56, Fig. 23; Helmer & Rocheteau 1994: 5-7, Fig 1A-1C; Wang 2017, vol. 2, Fig. H3, H4.

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| **Element** | **Specimen** | **SC** | **Burning** | **Size** | **Shape of glenoid cavity in distal view** | **The form of the tuberculum supraglenoidale and coracoids process in distal view** | The tuberculum supraglenoidale in lateral view | **Element ID** |
| **scapula** | HDT005 | 2 | 0 | P, N, C, O | O, Oa, P | O, Oa (juv), C, N | Oa (juv), O, C, N, P | O |

Table C.8 Identification results of Caprinae teeth specimens based on size and morphological criteria, referring to those described in Halstead et al., 2002. Fig. 2; Zeder and Pilaar 2010, Fig 3-6; Wang et al. 2020, Fig S5.1; Tong et al. 2008, Table 4, and the footnotes below.

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| **Element** | **Specimen** | **SC** | **Burning** | **Side** | **Size** | **Morphology\*** | **Element ID** |
| **upper M3** | LD002 | 1 | 0 | R | O, P, Ch, N，H | O, P, Ch | O/P/Ch |
| **upper M3** | KX003 | 1 | 0 | R | O | O, P, Ch | O |
| **upper M1/M2** | LD003 | 1 | 0 | R | O, P, Ch, N, H | O, P, Ch | O/P/Ch |
| **upper M1** | LD023 | 2 | 1 | L | O, P, Ch, N | O, P, Ch | O/P/Ch |
| **upper M1/M2** | LD043 | 1 | 0 | R | O, P, Ch, N | O, P, Ch | O/P/Ch |
| **upper M1/M2** | LD049 | 2 | 0 | - | O, P, Ch, N | O, P, Ch, N | O/P/Ch/N |
| **upper M1/M2** | LD154 | 1 | 0 | R | O, P, Ch, N | O, P, Ch | O/P/Ch |
| **maxillia bone with M1,M2, M3** | HDT002 | 2 | 0 | L | O, P, Ch, N | O, Ch | O/Ch |
| **maxillia bone with P2,P3,P4,M1,M2** | KD006 | 1 | 0 | R | O, P, Ch, N | O, Ch | O/Ch |
| **lower P3** | LD004 | 1 | 0 | R | O, Ch | O | O |
| **lower M1/M2** | LD024 | 1 | 0 | - | O, P, Ch, N, H | O, P, Ch, N, H | O, P, Ch, N, H |
| **lower M1/M2** | LD045 | 3 | 0 | R | O, P, Ch, N, H | O, P, Ch, N, H | O, P, Ch, N, H |
| **lower M1/M2** | LD046 | 3 | 0 | R | O, P, Ch, N, H | O, P, Ch, N, H | O, P, Ch, N, H |
| **lower M1/M2** | KX041 | 1 | 0 | R | O, P, Ch, N, H | O, P, Ch, N, H | O, P, Ch, N, H |
| **lower M2** | KX012 | 1 | 0 | R | O | O | O |
| **lower M1** | KX013 | 1 | 0 | R | O | O | O |
| **M1/M2** | LD051 | 1 | 0 | L | O, P, Ch, N, H | O, P, Ch, N, H | O, P, Ch, N, H |
| **M1/M2/M3** | LD053 | 1 | 0 | - | O, P, Ch, N, H | O, P, Ch, N, H | O, P, Ch, N, H |
| **incisor 1** | LD050 | 1 | 0 | R | O, P, Ch, N, H | O, P, Ch, N, H | O, P, Ch, N, H |

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