LOOKINGBILL (48FR308) FAUNAL CODING GUIDE V1.0 (2/93).

SPECIES CODES:

AC - Antilocapra americana, pronghorn

BD - Bird

BI - Bison bison, bison

CE - Cervus elephas, elk

CN - canid

CV - Carnivora

FB - fetal bison bone

FL - bison-sized fetal bone

GP - gastropod

OC - Ovis canadensis, bighorn sheep

OD - Odocoileus sp., deer

OH - Odocoileus hemionus, mule deer

OV - Odocoileus virginianus, white tail deer

RO - Rodent

UA - Ursus arctos, grizzly bear

UD - pronghorn, deer, sheep-sized

UL - bison-sized

UN - unidentified bone

SKELETAL ELEMENT CODES:

List 1: skeletal element codes by anatomical groups

 CRANIUM\TEETH

 CRN - cranium PMR - mandibular molar

 MR - mandible IC - incisor

 HY - hyoid MUN - unidentified molar

 MX - maxillary PUN - unidentified premolar

 HS - horn sheath TFR - tooth fragment

 MMX - maxillary molar TTH - unidentified tooth

 MMR - mandibular molar ANT - antler

 PMX - maxillary premolar

 AXIAL SKELETON

 AT - atlas vertebra CS - costal cartilage

 AX - axis vertebra SN - sternal element

 CE - cervical vertebra ZY - zyphoid

 TH - thoracic vertebra MN - manubrium

 LM - lumbar vertebra RB - rib

 SA - sacral vertebra VT - unidentified vertebra

 CA - caudal vertebra VT - unidentified vertebra

 SAC - complete sacrum or vertebra fragment

 APPENDICULAR SKELETON - FORE LIMB

 SC - scapula CP - unidentified carpal

 HM - humerus CPU - ulnar carpal

 RD - radius CPI - intermediate carpal

 UL - ulna CPR - radial carpal

 RDU - radius-ulna CPS - fused 2nd and 3rd carpal

 MC - metacarpal CPF - fourth carpal

 MCF - fifth metacarpal CPA - accessory carpal

 APPENDICULAR SKELETON - HIND LIMB

 PV - complete pelvis TR - unidentified tarsal

 IM - os coxae CL - calcaneus

 FM - femur AS - astragalus

 PT - patella TRC - fused central and 4th tarsal

 TA - tibia TRS - fused 2nd and 3rd tarsal

 LTM - lateral malleolus TRF - first tarsal

 MT - metatarsal

 MTS - second metatarsal

 APPENDICULAR SKELETON - OTHER

 PHF - first phalange SEP - proximal sesamoid

 PHS - second phalange SED - distal sesamoid

 PHT - third phalange SE - unidentified sesamoid

 PH - unidentified phalang HF - hoof cover

 MP - metapodial DC - accessory phalange (dew claw)

 FRAGMENTS

 LB - long bone

 FB - flat bone

 CB - cancellous bone

 UN - totally unidentified bone fragment

SKELETAL PORTION CODES:

 LONG BONES AND GENERAL CODES

 CO - complete DSE - distal epiphysis

 PR - proximal DF - diaphysis

 PRS - proximal end plus less DDS - distal diaphysis

 than half of the shaft DPR - proximal diaphysis

 PSH - proximal end plus more DFD - diaphysis plus

 than half of the shaft distal epiphysis

 DFP - diaphysis plus proximal

 epiphysis

 DS - distal end SH - long bone shaft

 DSS - distal end plus less FK - bone flake, less than half

 less than half of the shaft the circumference of the shaft

 EP - epiphysis

 DSH - distal end plus more BL - blade of rib or scapula

 than half of the shaft HE - head

 PRE - proximal epiphysis US - unspecified

 CDL - condyle IFK - bone impact flake

 SCAPULA

 CRB - cranial border portion CBD - caudal border portion

 GN - glenoid portion GNB - glenoid plus blade fragment

 GS - glenoid plus spine TOT - teres major tubercle portion

 ULNA

 ANC - trochlear notch portion OLC - olecranonal portion

 PAR - parietal MX - maxilla

 FN - frontal HC - horn core

 ZGO - zygomatic PET - petrous

 LC - lacrimal SR - skull roof (FN plus HC)

 INV - incisive BRC - braincase (FN plus OCC)

 NSL - nasal SKO - other combination of fragments, specify in comments

 OCC - occipital

 EN - tooth enamel PAL - palatine

 JUG - jugal process TW - tooth row

 TMP - temporal

 HYOID

 ANG - angle BOD - body

 MANDIBLE

 HRM - horizontal ramus DAM - DRM plus RAM

 DRM - dentary ramus SYM - symphysis

 RAM - ascending ramus TW - tooth row

 EN - tooth enamel BDR - distal border

 ANG - angle

 OS COXAE

 IL - ilium ACS - acetabulum plus ischium

 IS - ischium ACL - acetabulum plus ilium

 PB - pubis (iliopubic eminence) ACP - acetabulum plus pubis

 AC - acetabulum ILC - ilium cranial portion

 ILD - ilium caudal portion ISC - ischium cranial portion

 ISD - ischium caudal portion PBS - pubic symphysis portion

 VERTEBRAE

 CN - centrum SP - dorsal spinous process

 CNN - centrum plus neural arch TSP - transverse spinous process

 CNS - CN plus dorsal spine frag. AP - articular process

 CNW - atlas: centrum plus wings AEP - anterior epiphysis

 NAS - neural arch plus SP PEP - posterior epiphysis

SKELETAL SEGMENT CODES:

 CO - complete PL - posterolateral

 PR - proximal PM - posteromedial

 DS - distal AM - anteromedial

 LT - lateral AL - anterolateral

 ME - medial FO - fore

 CR - cranial (anterior) HD - hind

 CD - caudal (posterior) # (1-14) - specify vertebra\rib\tooth

 DR - dorsal FR - fragment

 VN - ventral US - unspecified

 ACT - acetabular portion (IM) IN - interior

 L - left EX - exterior

 R - right TM - teres major tubercle (HM)

 EN - tooth enamel DT - deltoid tuberosity (HM)

 HB - split RB blade SF - supracondyloid fossa (FM)

 EG - edge XL - axial

 SP - spine AB - abaxial

 HE - head TW - tooth row

 RT - radial tuberosity (RD)

 ANF - anterior nutrient ACR - anterior crest (TA)

 foramen (FM) POF - proximal olecranon fossa(HM)

 PLF - posterolateral nutrient MO - minor trochanter (FM)

 foramen (HM-RD-TA) MEH - tubercle for attachment of medial collateral ligament

SIDE

 R - right A - axial

 L - left N - not sided

BURNING

 0 - none 3 - carbonized and calcined

 1 - carbonized 8 - indeterminate

 2 - calcined 9 - not applicable

BREAKAGE

 0 - none 7 - crushed

 1 - spiral 8 - indeterminate

 2 - step 9- oblique

 3 - chipped #.1- green

 4 - impact cone #.2- intermediate

 5 - transverse #.3- dry

 6 - longitudinal #.4- indeterminate

 #.5- removed by gnawing

GNAWING

 11.1 - light rodent damage 30.1- definite carnivore gnawing

 12.1 - moderate\heavy rodent 40.1- probable carnivore damage

 ##.2 - combined rodent and

 carnivore gnawing

BUTCHERING (specific locations for cut marks, impacts, and other inflicted marks are illustrated on a series of standard bone templates).

0 - no evidence of butchering 8 -cuts and impacts

1 - cut marks 9 -possible cut\chop marks

2 - scraping (parallel 10 -anomalous marks

 striations) 11 -possible impact

3 - groove 12 -scraping and breakage morphology

4 - chopping 13 -anomalous marks and breakage morphology

5 - sawing

6 - impact

7 - breakage morphology

WEATHERING

 CORTICAL BONE

STAGE COMPACT BONE (modified from Behrensmeyer 1978)\*

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 1 unweathered, articular................ unweathered

 surfaces intact with no

 surface cracking

 2 articular surfaces intact............. limited surface weathering,

 with some surface cracking some longitudinal cracking

 3 articular surfaces exhibit............ light surface flaking, deeper

 some deterioration, but more cracking

 than 50% of the surface

 remains intact

 4 intact articular surfaces............. patches of fibrous bone with

 restricted to a few small moderate flaking and cracking

 "islands," less than 50%

 of the articular surfaces

 remain intact

 5 no articular surface area............. deep cracking and extensive

 remains intact surface flaking

 6 bone severely deteriorated............ bone falling apart in situ

 large areas of fibrous bone

 exposed

 7 fragment, inapplicable................ fragment, inapplicable

 8 chemically altered, original surface no longer visible

 9 no data

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\* - modified from Behrensmeyer (1978) with stage 0 representing a recent mortality

 (bone still greasy). Stage 1 represents Behrensmeyer's stage 0, stage 2 corresponds to Behrensmeyer's stage 1, etc.

SKELETAL ELEMENT CODES:

List 2: Alphabetized skeletal element codes

ANT antler PH phalanx, unidentified

AS astragalus PHF phalanx, first

AT atlas vertebra PHS phalanx, second

AX axis vertebra PHT phalanx, third

 PMR premolar, mandibular

CA caudal vertebra PMX premolar, maxillary

CB cancellous bone PT patella

CE cervical vertebra PUN premolar, unidentified

CL calcaneus PV complete pelvis

CP carpal, unidentified

CPA carpal, accessory RB rib

CPF carpal, fourth RD radius

CPS carpal, fused 2nd and 3rd RDU radius-ulna

CPI carpal, intermediate

CPR carpal, radial

CPU carpal, ulnar SA sacral vertebra

CRN cranium SAC sacrum, complete

CS costal cartilage SC scapula

 SE sesamoid, unidentified

DC accessory phalange SED sesamoid, distal

 (dew claw) SEP sesamoid, proximal

FB flat bone SH shaft

FM femur SN sternal element

FR fragment

HF hoof cover TA tibia

HS horn sheath TFR tooth fragment

HM humerus TH thoracic vertebra

HY hyoid TR tarsal, unidentified

 TRC tarsal, fused central and 4th

IC incisor TRF tarsal, first

IM os coxae TRS tarsal, fused 2nd and 3rd

 TTH tooth, unidentified

LB long bone

LM lumbar vertebra UL ulna

LTM lateral malleolus (ds fibula)

 UN totally unidentified bone fragment

MC metacarpal VT vertebra, unidentified

MCF metacarpal, fifth

MMR molar, mandibular ZY zyphoid

MMX molar, maxillary

MN manubrium

MP metapodial

MR mandible

MT metatarsal

MTS metatarsal, second

MUN molar, unidentified

MX maxillary