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