

LISCOMB BONEBED

SKELETAL ELEMENT

SURVEY-COMPILATION

LOCAT NUMBER	IMAGE: DIGITAL / PHOTO	LOCATION
BITE-MARKS		
AK-82-V-006	DIGITAL, TIF, SLIDE & BW NEG.	W/EXHIBIT
AK-83-V-149	DIGITAL, TIF & JPEG	LAB LANE CASE
AK-144-V-093	DIGITAL, TIF & JPEG	LAB LANE CASE
AK-232-V-068	N	COLLECTION RANGE
AK-233-V-011	N	COLLECTION RANGE
AK-233-V-051	N	COLLECTION RANGE
AK-239-V-014	DIGITAL, TIF & JPEG	LAB LANE CASE
AK-281-V-075	N	COLLECTION RANGE
AK-281-V-101	N	COLLECTION RANGE
AK-281-V-110	N	COLLECTION RANGE
AK-283-V-002	N	COLLECTION RANGE
AK-283-V-050	N	COLLECTION RANGE
AK-283-V-140	N	COLLECTION RANGE
AK-299-V-O18	N	COLLECTION RANGE
AK-300-V-105	N	COLLECTION RANGE
AK-300-V-119	N	COLLECTION RANGE
AK-381-V-057	N	COLLECTION RANGE
AK-382-V-059	N	COLLECTION RANGE
AK-382-V-109	DIGITAL, TIF & JPEG	LAB LANE CASE
AK-382-V-139	N	COLLECTION RANGE
AK-383-V-009	N	COLLECTION RANGE
AK-383-V-037	N	COLLECTION RANGE
AK-383-V-038	N	COLLECTION RANGE
AK-383-V-064	N	COLLECTION RANGE
AK-383-V-067	N	COLLECTION RANGE
AK-383-V-112	N	COLLECTION RANGE
AK-383-V-116	N	COLLECTION RANGE

LISCOMB BB PATHOLOGY AND TRACE FOSSILS
COMMENTS

Ind. limb bone fragment; four parallel v-shaped grooves; tooth drag-marks or scores

Pedal phalanx 1, digit III; two conical indentations on ventral side; tooth puncture marks

Pedal phalanx 1, digit III; conical pits and related fractures on prox. Articular surface and extending along dorsal surface

Caudal centrum; highly questionable bite-mark

Caudal centrum; highly questionable bite-mark

Left metatarsal II; five shallow grooves near distal end; tooth drag-marks or scores

Left humerus; broad shallow groove or score on post-interior ridge in distal 1/3; another groove may be present

Caudal centrum; highly questionable bite-mark

IND fragment; highly questionable bite-mark

Caudal centrum; highly questionable bite-mark

Caudal centrum; highly questionable bite-mark

Caudal centrum; highly questionable bite-mark

Caudal centrum; highly questionable bite-mark

IND bone fragment; highly questionable bite-mark 2 mm long on one surface

Caudal centrum; highly questionable bite-mark

Caudal centrum; highly questionable bite-mark

IND fragment; possible tooth pit, questionable bite-mark

Caudal centrum; highly questionable bite-mark

Partial dorsal rib; single, deep, v-shaped groove on ant. or post. Margin, tooth drag-mark or score

Left scapula; highly questionable bite-marks

Partial left quadrate; highly questionable bite-mark

Partial caudal chevron; highly questionable bite-mark

Dorsal vertebra lateral process; highly questionable bite-mark

Partial cervical neural arch; highly questionable bite-mark

Partial caudal chevron; highly questionable tooth pit

Caudal centrum; highly questionable bite-marks

Mid caudal centrum; highly questionable bite-mark

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AK-383-V-189ft	DIGITAL, TIF & JPEG	LAB LANE CASE
AK-385-V-007	N	COLLECTION RANGE
AK-385-V-011	DIGITAL, TIF & JPEG	LAB LANE CASE
AK-385-V-012	DIGITAL, TIF & JPEG	LAB LANE CASE
AK-385-V-024	N	COLLECTION RANGE
AK-385-V-028	N	COLLECTION RANGE
AK-385-V-052	DIGITAL, TIF & JPEG	LAB LANE CASE
AK-388-V-039	DIGITAL, TIF & JPEG	LAB LANE CASE
AK-388-V-042	N	COLLECTION RANGE
AK-397-V-075	DIGITAL, TIF & JPEG	LAB LANE CASE
AK-412-V-001	DIGITAL, TIF & JPEG	COLLECTION RANGE
AK-490-V-034	N	COLLECTION RANGE
AK-490-V-039	N	LAB LANE CASE
AK-490-V-064	N	LAB LANE CASE
AK-490-V-142	DIGITAL, TIF & JPEG	LAB LANE CASE
AK-490-V-184	N	LAB LANE CASE
AK-490-V-187	N	LAB LANE CASE
AK-490-V-192	N	LAB LANE CASE
AK-490-V-200	N	LAB LANE CASE
AK-490-V-09fl	N	LAB LANE CASE
AK-490-V-21fl	DIGITAL, TIF & JPEG	LAB LANE CASE
AK-490-V-24fl	N	LAB LANE CASE
AK-490-V-44fl	N	LAB LANE CASE
AK-490-V-45fl	N	LAB LANE CASE
AK-490-V-74fl	N	LAB LANE CASE
AK-491-V-123	N	COLLECTION RANGE
AK-531-V-020	N	COLLECTION RANGE
AK-531-V-060	N	COLLECTION RANGE
AK-531-V-092	N	COLLECTION RANGE
AK-531-V-116	N	COLLECTION RANGE
AK-531-V-168	DIGITAL, TIF & JPEG	LAB LANE CASE
AK-531-V-178	N	COLLECTION RANGE
AK-531-V-196	N	COLLECTION RANGE
AK-532-V-179	N	COLLECTION RANGE
AK-533-V-084	DIGITAL, TIF & JPEG	LAB LANE CASE
AK-533-V-135	N	COLLECTION RANGE
AK-534-V-114	N	COLLECTION RANGE
AK-534-V-OQ-06	DIGITAL, TIF & JPEG	LAB LANE CASE

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Partial cranial fragment (laterosphenoid?); single, deep, v-shaped groove; tooth drag-mark or score
Partial left metacarpal IV; distal 2/3; highly questionable bite-marks near distal end
Cranial section (jugal ?); tooth pits & tooth drag marks, one short, one long with related fracture systems
IND (lateral process?) with deep large pit near proximal unfused base---penetrates beyond cortical layer
Post. caudal centrum; highly questionable bite-mark
Dorsal rib head with possibly two parallel tooth drag-markesor scores
Right metacarpal V; one deep pit on rt. Lateral side & a long groove(score) with chatter-marks on other lateral side
Cranial piece (pterygoid or quadratojugal?); three, deep,parallel, tooth drag-marks near broken margin--varying widths
IND bone fragment; highly questionable bite-mark
Partial radius with two deep arcuate tooth drag-marks plus a shorter & shallower third one; found on distal 1/3, internal-lateral side
Partial tibia with six very shallow parallel tooth drag-marks running perpendicular to long axis near break margin; within 1.4 cm
IND fragment (Pterygoid?); 2 bite & drag marks(scores) 12mm long on one side
Partial left cervical neural arch with tooth pit & drag-mark 2-3mm long
Partial caudal neural spine with bite & drag-marks(scores) on medial part of spine
IND cranial fragment with two short parallel tooth drag-marks(scores) and related arcuate fracture joining them
IND bone fragment(dorsal neural spine?); 3mm long bite-drag-mark & gnawing at edge of fragment
Dorsal rib section with several bite-drag-marks(scores) perpendicular to one another
Left pedal phalanx 1, digit II with highly questionable tooth pits and related fractures
Caudal centrum; highly questionable bite-marks
Partial dorsal rib section, just below head, with 2 bite-drag-marks(scores) 4mm long
Partial rt.Jugal with three parallel, shallow to deep, bite-drag-marks(scores) on external surface near anterior suture edge
Nearly complete caudal neural arch & spine with bite-marks on neural arch
Caudal centrum; highly questionable bite-marks
Caudal centrum; highly questionable bite-marks
Partial dorsal rib with highly questionable bite-marks on crushed lateral surface
Partial left ulna with possible bite marks on internal surface
Partial dorsal rib with a possible bite-mark
Pedal phalanx 1, digit II with faint bite& drag-mark(score) 3mm long on prox. Surface
Posterior section of left jugal with possible bite-marks on interior surface
Partial poorly-preserved ulna; highly questionable bite-marks present
Posterior caudal centrum with three subparallel, shallow, slightly arcuate, bite-drag-marks
Nearly complete right ulna with 18 mm long bite& drag-mark & tooth pit on opposite side
Mid-posterior section of a scapula with 3 parallel bite & drag-marks(scores) 24mm long
Partial right surangular with 4mm long bite-drag-mark(score) on dorsal margin
Dorsal rib head with deep tooth drag-mark(score) & related fracture on interior surface just below base of head
Right metatarsal IV, highly questionable bite-mark; fractures make ID difficult
Nearly complete left humerus with highly questionable bite-mark; preservation makes ID difficult
Pedal phalanx 1, digit II with three tooth pits plus three deep drag-grooves(scores) near proximal margin

SUMMARY		Total Number of possible examples= 65	Number of unquestionable= 33
Element Counts	Skull= 08 Ribs= 06	Vertebrae= 05	Phalanges= 04
PATHOLOGY			
AK-83-V-252	DIGITAL, TIF & JPEG	COLLECTION RANGE	
AK-83-V-957	DIGITAL, TIF & JPEG	LAB LANE CASE	
AK-298-V-067	N	COLLECTION RANGE	
AK-299-V-151	DIGITAL, TIF & JPEG	LAB LANE CASE	
AK-382-V-063	DIGITAL, TIF & JPEG	LAB LANE CASE	
AK-383-V-101	N	LAB LANE CASE	
AK-383-V-111	DIGITAL, TIF & JPEG	LAB LANE CASE	
AK-383-V-118	N	COLLECTION RANGE	
AK-490-V-019	DIGITAL, TIF & JPEG	LAB LANE CASE	
AK-490-V-105	N	LAB LANE CASE	
AK-491-V-115	DIGITAL, TIF & JPEG	LAB LANE CASE	
AK-531-V-028	N	LAB LANE CASE	
AK-531-V-069	DIGITAL, TIF & JPEG	LAB LANE CASE	
AK-531-V-182	N	COLLECTION RANGE	
AK-531-V-0Q01	N	COLLECTION RANGE	
AK-532-V-182	N	COLLECTION RANGE	
AK-532-V-f1033	N	COLLECTION RANGE	
AK-533-V-OQ-04	DIGITAL, TIF & JPEG	LAB LANE CASE	
AK-534-V-047	DIGITAL, TIF & JPEG	LAB LANE CASE	
AK-534-V-099	N	LAB LANE CASE	

SUMMARY		
Total No. of Lesions= 13	Lesions ascribed to osteochondrosis= 12	Other lesions= 01; malleolus of tibia
	VERTEBRAL CENTRA= 08	
	Caudal= 06	
	Dorsal= 02	
	HINDLIMB= 04	
	Pedal phalanges=04	
Healed Breaks= 05	Dorsal Ribs	
Malformed lateral Process		
Malformed hadrosaur		

Number with drag or score marks=23 Number with pits/tooth cones=06 Both=04

Forelimb= 04(1 rad.+ 2 ulnae + 1 ind) Hindlimb= 01(tibia) Scapula= 01 Humerus= 01 MT&MC= 02 Ind=01

Deep arcuate lesion on distal end of inner malleolus of partial tibia; possible tumor or osteochondrosis

Nearly complete right dorsal rib with healed break

Partial dorsal rib with healed break

Anterior caudal centrum with 15 mm arcuate lesion on 1/2 of articular face; unusually deep (osteochondrosis)

Mid-posterior caudal centrum with 14mm long arcuate lesion on 1/2 of articular face (osteochondrosis)

Partial broken & healed dorsal rib

Pedal phalanx 2-3, digit III with 30 mm long, highly arcuate lesion on proximal articular surface (osteochondrosis)

Pedal phalanx 2-3, digit IV with 17mm lesion on proximal surface

Anterior caudal centrum with lesions on both anterior & posterior articular faces (osteochondrosis)

Posterior caudal centrum with two unequal arcuate lesions on articular face (osteochondrosis)

Anterior dorsal centrum with two unequal arcuate lesions on an articular face (osteochondrosis)

Pedal phalanx 2-3, digit II with 10mm long arcuate lesion(osteochondrosis) on proximal articular surface

Dorsal centrum with 18mm long central lesion (osteochondrosis) on articular face

Posterior-mid caudal centrum with one lateral process unformed--base not formed

Pedal phalanx 2-3 with 25mm arcuate lesion (osteochondrosis)

Partial dorsal rib, mid-rib break healed

Mal-formed tooth crown, apex-keel splits in two

Posterior caudal centrum with broad, deep lesion (osteochondrosis) on articular face; possible tooth pit on same surface

Mid-posterior caudal centrum with three, unequal, broad, & shallow lesions (osteochondrosis) on articular face

Partial dorsal rib, broken & healed

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tooth crown--split keel

REFERENCES

Erickson, 1995

Fiorillo, 1991c

Jacobsen, 1998

Rothchild & Tanke, 2006

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