

Appendix

List of Sampled Specimens. Taxa are listed in Alphabetical Order.

For Institutional Abbreviations, see Text.

Ampelosaurus atacis (Le Loeuff 1995, 2005)

Specimen	Bone	Length (cm)	Sample	Museum	Locality
C3 1139	humerus	> 10.0	cross-section	MDE	Bellevue
C3 1139a	humerus	> 13.3	cross-section	MDE	Bellevue
C3 270	humerus	> 18.0	cross-section	MDE	Bellevue
C3 977	humerus	> 19.0	cross-section	MDE	Bellevue
C3 238	humerus	> 34.0	cross-section	MDE	Bellevue
C3 1189	humerus	> 32.0	core	MDE	Bellevue
C3 602	humerus	> 35.0	core	MDE	Bellevue
C3 1377	humerus	> 55.5	cross-section	MDE	Bellevue
C3 1506	humerus	62.0	core	MDE	Bellevue
C3 175	humerus	70.0	core	MDE	Bellevue
Cruzy 1723	humerus	> 40.0	core	LMC	Cruzy
Cruzy I	humerus	> 60.0	core	LMC	Cruzy
Cruzy II	femur	55.0	core	LMC	Massecaps
C3 174	femur	> 69.0	core	MDE	Bellevue
C3 1239	femur	> 55.6	core	MDE	Bellevue
C3 708	femur	> 40.0	core	MDE	Bellevue
C3 143	femur	> 42.0	core	MDE	Bellevue
C3 638	femur	> 60.5	core	MDE	Bellevue
C3 582	femur	> 63.5	cross-section	MDE	Bellevue
C3 527	femur	> 68.0	core	MDE	Bellevue
C3 1182	femur	69.5	core	MDE	Bellevue
Cruzy III	femur	> 48.0	cross-section	LMC	Montouliers
Cruzy IV	femur	63.0	core	LMC	Montouliers
Cruzy V	femur	71.0	core	LMC	Massecaps
C3 203	femur	> 78.0	core	MDE	Bellevue
C3 261	femur	84.0	core	MDE	Bellevue
Cruzy VI	femur	89.0	core	LMC	Montouliers
C3 78	femur	> 100.0	core	MDE	Bellevue

Apatosaurus spp. (Carpenter and McIntosh 1994, for the juveniles)

Specimen	Bone	Length (cm)	Sample	Museum	Locality
OMNH 01278	humerus	25.8	core	OMNH	Kenton Quarry
CM 21715	humerus	79.2	core	CM	Dinosaur Nat. Mon.
BYU 681-4749	humerus	88.0	core		Cactus Park
CM 3378	humerus	98.0	core	CM	Dinosaur Nat. Mon.
OMNH 01279	femur	34.0	core	OMNH	Kenton Quarry
CM 33976	femur	72.5	core	CM	Dinosaur Nat. Mon.
BYU 601-17103	femur	83.0	core	BYU	BYU locality 601
BYU 681-17014	femur	97.0	core	BYU	Cactus Park
CM 30766	femur	130.2	core	CM	Dinosaur Nat. Mon.
BYU 681-11940	femur	133.0	core	BYU	Cactus Park
BYU 681-11940	femur	158.0	core	BYU	BYU locality 601
SMA 0014	femur	164.0	core	SMA	Howe Ranch
OMNH 01991	femur	176.0	core	OMNH	Kenton Quarry
OMNH 4020	femur	> 180.0	core	OMNH	Kenton Quarry
OMNH 1285	tibia	20.05	cross-section	OMNH	Kenton Quarry
SMA 0014	tibia	> 64.0	core	SMA	Howe Ranch
OMNH 1300	scapula	35.5	core	OMNH	Kenton Quarry

BYU 681-16795	scapula	116.0	core	BYU	Cactus Park
BYU 681-16782	scapula	125.0	core	BYU	Cactus Park
BYU 725-16614	scapula	127.0	core	BYU	Dry Mesa Quarry
OMNH 01375	scapula	145.5	core	OMNH	Kenton Quarry

Barosaurus sp. (Marsh 1890)

Specimen	Bone	Length (cm)	Sample	Museum	Locality
CM21719	humerus	101.0	core	CM	Dinosaur Nat. Mon.

Brachiosaurus spp. (Riggs 1903, Janensch 1914)

Specimen	Bone	Length (cm)	Sample	Museum	Locality
XX 19	humerus	69.0	core	MFN	Tendaguru
cc 2	humerus	108.0	core	MFN	Tendaguru
T 8	humerus	128.0	core	MFN	Tendaguru
t 7	humerus	153.0	core	MFN	Tendaguru
J 12	humerus	170.0	core	MFN	Tendaguru
BYU 725-17336	humerus	175.0	core	MFN	Dry Mesa Quarry
II 28e	humerus	176.0	core	MFN	Tendaguru
g 1	femur	69.0	core	MFN	Tendaguru
St 134	femur	74.0	core	MFN	Tendaguru
IX 1	femur	88.0	core	MFN	Tendaguru
dd 452	femur	135.0	core	MFN	Tendaguru
Nr. 305	femur	156.0	core	MFN	Tendaguru
St 291	femur	183.0	core	MFN	Tendaguru
XV	femur	219.0	core	MFN	Tendaguru
No. 85	tibia	85.0	core	MFN	Tendaguru
MB.R.1990.1	ulna	90.0	core	MFN	Tendaguru

Camarasaurus spp. (Ayer 2000, Foster 2003)

Specimen	Bone	Length (cm)	Sample	Museum	Locality
OMNH 2115	humerus	22.7	core	OMNH	Kenton Quarry
CM 33963	humerus	50.8	core	CM	Dinosaur Nat. Mon.
BYU 681-4742	humerus	61.5	core	BYU	Cactus park
SMA 0002	humerus	70.5	core	SMA	Howe Ranch
BYU 725-16776	humerus	81.9	core	BYU	Dry Mesa Quarry
BYU 725-11714	humerus	92.5	core	BYU	Dry Mesa Quarry
CM 38320	humerus	104.0	core	CM	Dinosaur Nat. Mon.
CM 36664	humerus	117.2	core	CM	Dinosaur Nat. Mon.
OMNH 2113	humerus	120.4	core	OMNH	Kenton Quarry
CM 21772	femur	55.0	core	CM	Dinosaur Nat. Mon.
OMNH 1794	femur	60.0	core	OMNH	Kenton Quarry
SMA K11-29-1	femur	83.0	core	SMA	Howe Ranch
SMA 0002	femur	93.5	core	SMA	Howe Ranch
BYU 725-12173	femur	133.0	core	BYU	Dry Mesa Quarry
CM 36664	femur	145.2	core	CM	Dinosaur Nat. Mon.
CM 11393	femur	156.6	core	CM	Dinosaur Nat. Mon.
SMA 0002	tibia	61.5	core	SMA	Howe Ranch
SMA 0002	scapula	49.0	core	SMA	Howe Ranch
OMNH 10330	ischium	84.0	core	OMNH	Kenton Quarry
OMNH 10227	ischium	89.0	core	OMNH	Kenton Quarry
OMNH 10233	ischium	108.0	core	OMNH	Kenton Quarry
SMA G56/87-1	vertebra		core	SMA	Howe Ranch
SMA 0002	rib		cross-section	SMA	Howe Ranch

Dicraeosaurus spp. (Janensch 1961)

Specimen	Bone	Length (cm)	Sample	Museum	Locality
O 2	femur	98.0	core	MFN	Tendaguru
M 1	femur	112.0	core	MFN	Tendaguru
dd 3032	femur	114.0	core	MFN	Tendaguru
ab 10	humerus	58.0	core	MFN	Tendaguru
O 3	humerus	61.0	core	MFN	Tendaguru
ab 2	humerus	62.0	core	MFN	Tendaguru

Janensch 1961

Diplodocus spp. (Foster 2003)

Specimen	Bone	Length (cm)	Sample	Museum	Locality
BYU 725-17048	humerus	90.0	core	BYU	Dry Mesa Quarry
OMNH 01781	humerus	106.0	core	OMNH	Kenton Quarry
OMNH 1793	femur	61.0	core	OMNH	Kenton Quarry
CM 33991	femur	80.0	core	CM	Dinosaur Nat. Mon.
BYU 725-11421	femur	99.0	core	BYU	Dry Mesa Quarry
BYU 725-4889	femur	112.1	core	BYU	Dry Mesa Quarry
BYU 725-16569	femur	113.6	core	BYU	Dry Mesa Quarry
BYU 681-9033	femur	123.0	core	BYU	Cactus Park
BYU 725-9026	femur	124.6	core	BYU	Dry Mesa Quarry
BYU 725-12155	femur	134.5	core	BYU	Dry Mesa Quarry
BYU 725-13369	femur	142.0	core	BYU	Dry Mesa Quarry

Diplodocinae indet. (Ayer 2000; Schwarz et al. 2007)

Specimen	Bone	Length (cm)	Sample	Museum	Locality
SMA 646-87-1	humerus	71.5	core	SMA	Howe Ranch
SMA 650-91-1	humerus	73.5	core	SMA	Howe Ranch
SMA 0011	humerus	85.0	core	SMA	Howe Ranch
SMA 0007	humerus	92.5	core	SMA	Howe Ranch
SMA 0009	femur	24.8	core	SMA	Howe Ranch
SMA 0008	femur	110.0	core	SMA	Howe Ranch
SMA 647-87-1	femur	120.0	core	SMA	Howe Ranch
SMA M16-12-3	femur	125.0	core	SMA	Howe Ranch
SMA 0015	femur	134.0	core	SMA	Howe Ranch
SMA 0011	femur	149.0	core	SMA	Howe Ranch
SMA 0008	tibia	86.5	core	SMA	Howe Ranch
SMA 0007	tibia	98.0	core	SMA	Howe Ranch
SMA 0015	tibia	101.9	core	SMA	Howe Ranch
SMA C17-8	ulna	57.5	core	SMA	Howe Ranch
SMA 0007	ulna	74.5	core	SMA	Howe Ranch
SMA 0007	ulna	74.5	core	SMA	Howe Ranch
SMA 0011	scapula	138.0	core	SMA	Howe Ranch

Diplodocinae indet.

previously *Barosaurus africanus* (Janensch 1961; Remes 2006, 2007)

Specimen	Bone	Length (cm)	Sample	Museum	Locality
G 91	humerus	43.5	core	SMA	Tendaguru
MB.R.2625	humerus	61.0	core	MFN	Tendaguru
IX 94	humerus	64.0	core	MFN	Tendaguru
XVI 64 I	humerus	73.0	core	MFN	Tendaguru
XI a7	humerus	80.5	core	MFN	Tendaguru

XVI 5	femur	79.0	core	MFN	Tendaguru
Ki 71a	femur	102.0	core	MFN	Tendaguru
Ki 10	femur	110.0	core	MFN	Tendaguru
Ki 2	femur	119.0	core	MFN	Tendaguru
Ki 4	femur	120.0	core	MFN	Tendaguru
Nr. 76	femur	135.0	core	MFN	Tendaguru
NW 4	femur	135.0	core	MFN	Tendaguru
Ki 5	tibia	84.0	core	MFN	Tendaguru
H 5	fibula	96.0	core	MFN	Tendaguru

Europasaurus holgeri (Sander et al. 2006)

Specimen	Bone	Length (cm)	Sample	Museum	Locality
FV 153	femur		core	FV	Langenberg
FV 291.9	femur		core	FV	Langenberg
FV 415	femur		cross-section	FV	Langenberg
FV 415	femur		core	FV	Langenberg
FV 495.9	femur		core	FV	Langenberg
S.T.0147	tibia		core	FV	Langenberg
FV 001	tibia		core	FV	Langenberg
FV 495.5	tibia		core	FV	Langenberg
FV 009	tibia		core	FV	Langenberg
FV 651	indet long bone		core	FV	Langenberg
FV 484	indet long bone		core	FV	Langenberg

cf. *Isanosaurus* (Buffetaut et al. 2000)

Specimen	Bone	Length (cm)	Sample	Museum	Locality
CH5	humerus	75.0 cm	cross-section/core	PC.DMR	Nam Phong Formation

Janenschia robusta (Wild 1991)

Specimen	Bone	Length (cm)	Sample	Museum	Locality
P8	humerus	89.0	core	MFN	Tendaguru
Nr. 22	femur	127.0	core	MFN	Tendaguru

Phuwiangosaurus sp. (Martin, Suteethorn and Buffetaut 1999)

Specimen	Bone	Length (cm)	Sample	Museum	Locality
K4-428	humerus	71.0	core	PC.DMR	Phu Kum Khao
K4-162	humerus	73.0	core	PC.DMR	Phu Kum Khao
K1-28	humerus	77.0	core	PC.DMR	Phu Pha Ngo
PW1-8	humerus	102.0	core	PC.DMR	Phu Singha
KD2 -1	humerus	110.0	core	PC.DMR	Khok Du
PW4-6	femur	> 17.0	core	PC.DMR	Phu Singha
K16-20	femur	38.5	cross-section	PC.DMR	Phu Singha
K16-33	femur	39.0	cross-section	PC.DMR	Phu Singha
PW5 A-1	femur	41.0	cross-section	PC.DMR	Phu Singha
PW5 A-2	femur	42.0	cross-section	PC.DMR	Phu Singha
femur I	femur	58.0	core	PC.DMR	unknown
femur II	femur	62.0	core	PC.DMR	unknown
K4-366	femur	93.0	core	PC.DMR	Phu Kum Khao
K11-1	femur	100.0	core	PC.DMR	Ban Na Khrai
no No.	femur	~ 103.0	core	PC.DMR	unknown
K4-69	femur	~ 105.0	core	PC.DMR	Phu Kum Khao
K21	femur	112.0	core	PC.DMR	Phu Singha
2.	femur?	fragment	cross-section	PC.DMR	Phu Singha

3.	femur ?	fragment	cross-section	PC.DMR	Phu Singha
tibia I	tibia	> 32.0	core	PC.DMR	Phu Singha
tibia II	tibia	> 34.0	core	PC.DMR	Phu Singha
PW4-9	long bone indet	> 9.0	cross-section	PC.DMR	Phu Singha
PW4-20	long bone indet	> 10.5	cross-section	PC.DMR	Phu Singha
PW4-12	long bone indet	fragment	core	PC.DMR	Phu Singha
PW4-10	long bone indet	fragment	cross-section	PC.DMR	Phu Singha
PW1-13	pubis	75.0	core	PC.DMR	Phu Singha
K11-123	pubis	62.0	core	PC.DMR	Phu Singha
K1-15	pubis	49.0	core	PC.DMR	Ban Na Khrai
K11-75	rib	nm	cross-section	PC.DMR	Ban Na Khrai
K11-14	rib	nm	cross-section	PC.DMR	Ban Na Khrai

Tornieria africana (Remes 2006)

Specimen	Bone	Length (cm)	Sample	Museum	Locality
A1	humerus	99.0	core	MFN	Tendaguru

cf. *Seismosaurus* (Gillette 1991)

Specimen	Bone	Length (cm)	Sample	Museum	Locality
SMA	scapulacoracoid	~ 90.0	core	SMA	Howe Ranch

Supersaurus vivianae (Jensen 1985)

Specimen	Bone	Length (cm)	Sample	Museum	Locality
BYU 725-13744	ulna	125.0	core	BYU	Dry Mesa Quarry

sauropod indet

Specimen	Bone	Length (cm)	Sample	Museum	Locality
BYU 725-16292	humerus	18.0	core	BYU	Dry Mesa Quarry

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