

Supplementary Table 1. Large-bodied, Extinct, Mammalian Herbivores Previously Reported in the Willamette Valley (sorted by genera and county).
 Shaded specimens are those included in this study's specialized analyses. See Gilmour (2011) for additional information.

Order	Finest Taxon	Element	County	Reference	Provenance	Comment
Artiodactyla	<i>Bison antiquus</i>	cranium	Clackamas	Hay, 1927:123-124	Recovered by dredgers working above Willamette Falls	Could not relocate
Artiodactyla	<i>Bison</i> sp.	tarsal	Lane	Perkins, 1842:136; Hay, 1927:51	Around Eugene, 12 ft. below surface, found with elephant	Could not relocate
Artiodactyla	<i>Bison</i> sp.	pelvic fragment, two ribs	Marion	Stenger, 2000b:8	Woodburn	UO MNCH
Artiodactyla	<i>Bison</i> sp.	metacarpal, metatarsal, two mandibles, teeth, ramus, cranial fragments, thoracic vertebra, phalanges, three ribs, unspecified fragments	Marion	Stenger, 2001:6, 33, 35-36, 39-40, 43, 54	Woodburn	UO MNCH
Artiodactyla	<i>Bison</i> sp.	not specified	Marion	Stenger, 2003:9, 13	Woodburn	UO MNCH
Artiodactyla	<i>Bison</i> sp.	one cranial fragment, two specimens w/ element not specified	Marion	Stenger, 2004:4, 19, 22	Woodburn	UO MNCH # F-38600-38602
Artiodactyla	<i>Bison</i> sp.	left scapula	Marion	Stenger, 2006:2, 10; Gilmour, 2011	Woodburn	Bison 4 UO MNCH # F-40527
Artiodactyla	<i>Bison</i> sp.	right mandible	Marion	Stenger, 2006; Gilmour, 2011	Woodburn	Bison 3 UO MNCH # F-40523
Artiodactyla	<i>Bison</i> sp.	rib	Marion	Stenger, 2005:5	Woodburn	UO MNCH
Artiodactyla	<i>Bison</i> cf. <i>antiquus</i>	not specified	Marion	Stenger, 2003:16	Woodburn	UO MNCH
Artiodactyla	<i>Bison antiquus</i>	not specified	Marion	Stenger, 2001:6	Woodburn	UO MNCH
Artiodactyla	<i>Bison antiquus</i>	not specified	Marion	Stenger, 2002:14	Woodburn	UO MNCH
Artiodactyla	<i>Bison antiquus</i>	vertebra	Marion	Stenger, 2003:10	Woodburn	UO MNCH
Artiodactyla	<i>Bison</i> sp.	left 2 nd phalanx	Marion	Stenger, 2003; Gilmour, 2011	Woodburn	Bison 2 UO MNCH # F-38522
Artiodactyla	<i>Bison antiquus</i>	not specified	Marion	Stenger, 2006:5	Woodburn	UO MNCH
Artiodactyla	<i>Bison antiquus</i>	partial skeleton	Marion	Ellingson and Davis, 2009; Gilmour, 2011	Woodburn High School	Bison 5 UO MNCH # F-42801

Artiodactyla	<i>Bison latifrons</i>	not specified	Marion	Stenger, 2002:14	Woodburn	UO MNCH
Artiodactyla	<i>Bison</i> sp.	tooth	Multnomah	McCornack, 1914:15; Hay, 1927:123	Washington St. near West Park near center of city of Portland at depth of 22 ft.	Could not relocate
Artiodactyla	<i>Bison antiquus</i>	cranium, right femur	Washington	Webb, 1975; Gilmour, 2011	Hillsboro	Bison 1 UO MNCH #s F-29240, F- 29244-29246, F- 29248-29255
Artiodactyla	<i>Bison</i> sp.	left (distal) tibia	Yamhill	Bonnichsen et al., 2002; Gilmour, 2011	McMinnville	Private collection
Artiodactyla	<i>Bison antiquus</i>	right femur, cervical vertebra	Yamhill	Stenger and Fitzsimons, 2007:4-5, 9, 14; Gilmour, 2011	McMinnville	Private collection
Artiodactyla	<i>Camelops</i> sp.	tibia	Marion	Stenger, 2003:18	Woodburn	F-38509
Artiodactyla	<i>Camelops</i> sp.	tooth	Multnomah	McCornack, 1914:16; Hay, 1927:102	In Portland at No. 3 reservoir, City Park at depth of 41 ft.	Could not relocate
Perissodactyla	<i>Equus</i> sp.	tooth	Clackamas	McCornack, 1914:16; Hay, 1927:69	In Gladstone, 0.5 miles from a bridge at depth of 25 ft.	Could not relocate
Perissodactyla	<i>Equus</i> sp.	upper right 2 nd molar	Lane	McCornack, 1914:16; Hay, 1927:70	Mattoon farm 8 miles west of Eugene	Could not relocate
Perissodactyla	<i>Equus</i> sp.	upper right 1 st or 2 nd molar	Linn	McCornack, 1914:16; Hay, 1927:70		Could not relocate (Hay, 1927 specimen #340)
Perissodactyla	<i>Equus</i> sp.	lower left molar	Linn	McCornack, 1914:16; Hay, 1927:70		Could not relocate (Hay, 1927 specimen #342)
Perissodactyla	<i>Equus</i> sp.	not specified	Marion	Stenger, 2002:14	Woodburn	UO MNCH
Perissodactyla	<i>Equus</i> sp.	two specimens, elements not specified	Marion	Stenger, 2003:18, 19	Woodburn	UO MNCH # F- 37963 & F- 38544
Perissodactyla	<i>Equus</i> sp.	terminal phalanx	Marion	Stenger, 2003; Gilmour, 2011	Woodburn	Horse 1 UO MNCH # F- 37000
Perissodactyla	<i>Equus</i> sp.	astragalus	Marion	Stenger, 2003:5, 21;	Woodburn	Horse 2

				Gilmour, 2011		UO MNCH # F-38518
Perissodactyla	<i>Equus</i> sp.	tooth	Yamhill	McCornack, 1914:16; Hay, 1927:70	On the locks of the Yamhill River near Dayton	Could not relocate
Perissodactyla	<i>Equus pacificus</i>	upper left 2 nd premolar	Yamhill	McCornack, 1914:16; Hay, 1927:69	2 ½ miles sw of Dundee in Section 3, lot 4, Township 4 South, Range 3West	Could not relocate (Hay, 1927 specimen #466)
Perissodactyla	<i>Equus pacificus</i>	upper right 3 rd or 4 th premolar	Yamhill	McCornack, 1914:16; Hay, 1927:69	Near Newberg, 12 ft. below bed of Willamette River	Could not relocate (Hay, 1927 specimen #344)
Proboscidea	<i>Mammut americanum</i>	upper left hindmost molar	Clackamas	Hay, 1927:19	Near Oregon City	Could not relocate
Proboscidea	<i>Mammut americanum</i>	not specified	Marion	Stenger, 2002:14	Woodburn	UO MNCH
Proboscidea	<i>Mammut americanum</i>	tusks	Linn	McCornack, 1914:14	Ne corner of Broadalban and 2 nd Streets, Albany, at depth of 8 ft.	Could not relocate
Proboscidea	<i>Mammut americanum</i>	tusk	Linn	McCornack, 1914:14	At Mill Race in southern suburbs of Albany	Could not relocate
Proboscidea	<i>Mammut americanum</i>	tusk fragments	Linn	McCornack, 1914:14	2 blocks east of intersection of Broadway and 2 nd Streets, Albany	Could not relocate
Proboscidea	<i>Mammut americanum</i>	partial skeleton	Washington	Addington, 2006; Gilmour, 2011	Tualatin	Mastodon 1 THS-1; UO MNCH # F-30282
Proboscidea	<i>Mammut americanum</i>	left ramus w/ 2 nd and 3 rd molars	Yamhill	Hay, 1927:20	2-3 miles northwest of McMinnville	Could not relocate
Proboscidea	<i>Mammut americanum</i>	hindmost molar	unknown (possibly Yamhill)	Hay, 1927:20		Could not relocate
Proboscidea	<i>Mammut americanum</i>	unknown	unknown	Wilkes, 1844:385		Could not relocate
Proboscidea	<i>Mammuthus</i> sp.	tooth	Lane	McCornack, 1914:13	2-3 mile South of Eugene on Farrington Homestead	Could not relocate
Proboscidea	Proboscidea	tusk	Lane	Reese and Fagan, 1997	North of Coburg, 210-240 south of site	Could not relocate

Proboscidea	<i>Mammuthus</i> sp.	teeth, two tusks	Lane	McCornack, 1914:13	35LIN453/ LA976 Township 18 South, Range 3 West	Could not relocate
Proboscidea	<i>Mammuthus</i> sp.	one tusk and one fragment of large bone	Lane	McCornack, 1914:13	Township 18 South, Range 3 West	Could not relocate
Proboscidea	<i>Mammuthus</i> sp.	tusk	Lane	McCornack, 1914:13	Township 16 South, Range 3 West, at depth of 18 feet	Could not relocate
Proboscidea	<i>Mammuthus</i> <i>columbi</i>	tooth	Lane	Hay, 1927:31	3 miles south of Eugene	Could not relocate (Hay, 1927 specimen #288)
Proboscidea	<i>Mammuthus</i> <i>columbi</i>	tooth	Lane	Hay, 1927:31	3 miles south of Eugene	Could not relocate (Hay, 1927 specimen #291)
Proboscidea	<i>Mammuthus</i> sp.	tooth frag., tusk frag.	Linn	Cressman and Laughlin, 1941	3 miles outside of Lebanon	Could not relocate
Proboscidea	<i>Mammuthus</i> sp.	several vertebra, tooth, tusk frag.	Linn	Cressman, 1947	Township 14 South, Range 3 West, section 5	Could not relocate
Proboscidea	<i>Mammuthus</i> sp.	tooth	Linn	McCornack, 1914:13	Township 12 South, Range 4 West, at or near Tangent on the Calapooya River	Could not relocate
Proboscidea	<i>Mammuthus</i> sp.	tooth	Linn	McCornack, 1914:13	Township 12 South, Range 2 West, in Lebanon	Could not relocate
Proboscidea	<i>Mammuthus</i> sp.	tooth	Linn	McCornack, 1914:13	Township 12 South, Range 3 West, on Anderson Farm near Tangent	Could not relocate
Proboscidea	<i>Mammuthus</i> sp.	two teeth	Linn	McCornack, 1914:13	Township 12 South, Range 1 West, east of Lebanon	Could not relocate
Proboscidea	<i>Mammuthus</i> <i>columbi</i>	tooth	Linn	McCornack, 1914:13; Hay, 1927:31	On Willamette river below Harrisburg	Could not relocate
Proboscidea	<i>Mammuthus</i> <i>columbi</i>	bones and teeth	Linn	Hay, 1927:32	4 miles east of Lebanon	Could not relocate
Proboscidea	<i>Mammuthus</i> sp.	cranium, molars, four tusks, upper molars, three lower	Marion	Hansen and Packard, 1949	3 miles east of Lebanon, sw 1/4, Section 36,	Could not relocate

		molars, humerus frag., femur frag., fragmented limb bones, sacrum, ribs			Township 6 South, Range 5 1 West, elevation of about 625 feet	
Proboscidea	<i>Mammuthus columbi</i>	ten teeth, shoulder blade, jaw	Marion	Hay, 1927:32	Township 7 South, Range 1 East, 5 ft. below surface	Could not relocate
Proboscidea	<i>Mammuthus columbi</i>	lower left deciduous hindmost molar	Marion	Hay, 1927:32	On Willamette River at Ray's Landing, ½ mile below mouth of Yamhill River	Could not relocate
Proboscidea	<i>Mammuthus columbi</i>	left and right upper 5 th molars, left femur, tusk fragments, pelvic fragment	Marion	Barton and Cearley, 2008; Cearley, 2008; Gilmour, 2011	Pratum	Mammoth 2 UO MNCH F- 55633
Proboscidea	<i>Mammuthus columbi</i>	not specified	Marion	Stenger, 2002:14	Woodburn	UO MNCH
Proboscidea	<i>Mammuthus</i> sp.	partial skeleton	Washington	Kittleman, 1976; Gilmour, 2011;	Hillsboro	Mammoth 1 UO MNCH # F- 29247
Proboscidea	<i>Mammuthus</i> sp.	tooth	Washington	McCornack, 1914:14		Could not relocate
Proboscidea	<i>Mammuthus columbi</i>	two teeth	Washington	Hay, 1927:33		Could not relocate (Hay, 1927 specimen #298)
Proboscidea	<i>Mammuthus</i> sp.	tooth	Yamhill	McCornack, 1914:13	Dayton	Could not relocate
Proboscidea	<i>Mammuthus</i> sp.	tooth	Yamhill	McCornack, 1914:13	From bank of Yamhill River, Dayton	Could not relocate
Proboscidea	<i>Mammuthus</i> sp.	ulna	Yamhill	McCornack, 1914:13	Dayton	Could not relocate
Proboscidea	<i>Mammuthus columbi</i>	lower left hindmost molar	Yamhill	Condon, 1902; Hay 1927:32	Dayton	Could not relocate
Proboscidea	<i>Mammuthus columbi</i>	upper right last molar	Yamhill	Hay, 1927:32	Dayton	Could not relocate
Proboscidea	<i>Mammuthus columbi</i>	teeth	Yamhill	Hay, 1927:33	Around Newberg	Could not relocate
Proboscidea	<i>Mammuthus columbi</i>	partial skeleton	Yamhill	Stenger and Fitzsimons, 2007; Stenger, 2010; Gilmour, 2011		Private collection

Proboscidea	<i>Mammuthus columbi</i>	upper molar	unknown	Hay, 1927:33		Could not relocate (Hay, 1927 specimen #298)
Proboscidea	Elephantidae	tooth	Clackamas	McCornack, 1914:13; Hay, 1927:52	Township 3 South, Range 1 East, from Mollala River at Canby	Could not relocate
Proboscidea	Elephantidae	tooth	Clackamas	McCornack, 1914:14; Hay, 1927:52	Wilsonville	Could not relocate
Proboscidea	Elephantidae	tusk fragment, upper 2 nd molar, lower 3 rd molar	Lane	Perkins, 1842:136; Hay, 1927:51	Around Eugene, 12 ft. below surface, possibly found with sloth (Hay 1927:8)	Could not relocate
Pilosa	<i>Paramylodon harlani</i>	tooth, humerus	Lane	Perkins, 1842:132; Hay, 1927:8	12 ft. below surface	Could not relocate
Pilosa	<i>Paramylodon harlani</i>	mandible	unknown	Hay, 1927:8		Could not relocate
Pilosa	<i>Paramylodon harlani</i>	4 th molariform	Marion	Stenger, 2000a:15-16	Woodburn	UO MNCH
Pilosa	<i>Paramylodon harlani</i>	six teeth	Marion	Stenger, 2000b:6-7	Woodburn	UO MNCH
Pilosa	cf. <i>Paramylodon harlani</i>	not specified	Marion	Stenger, 2001:6	Woodburn	UO MNCH
Pilosa	cf. <i>Paramylodon harlani</i>	tooth	Marion	Stenger, 2004:4	Woodburn	UO MNCH
Pilosa	cf. <i>Paramylodon harlani</i>	teeth and jaw fragments	Marion	Stenger, 2006:5, 11	Woodburn	UO MNCH
Pilosa	<i>Paramylodon harlani</i>	not specified	Marion	Stenger, 2002:14	Woodburn	UO MNCH
Pilosa	<i>Paramylodon harlani</i>	dermal ossicle	Marion	Stenger, 2004:17	Woodburn	UO MNCH # F-38571
Pilosa	<i>Paramylodon harlani</i>	right femur, left humerus	Washington	Akersten, 1976; Gilmour 2011	Hillsboro	Sloth 1 UO MNCH #s F-29242, F-29243
Pilosa	<i>Paramylodon harlani</i>	synsacrum	Washington	Gilmour, 2011	Tualatin River/Fanno Creek	Sloth 2 THS-2

Pilosa	<i>Paramylodon harlani</i>	right humerus	Yamhill	Gilmour, 2011	In river bank at confluence of unnamed creek and South Yamhill	Private collection
Pilosa	<i>Megalonyx jeffersoni</i>	two claws	Yamhill	McCornack, 1914:15; Hay, 1927:8, 32	On a bluff on Yamhill river, near Dayton,	Could not relocate
Pilosa	Pilosa	two jaw fragments	Marion	Stenger, 2000a:15-16	Woodburn	UO MNCH

Supplementary Table 2. Chi-Squared tests comparing conventional ^{14}C ages of Willamette Valley megafaunal specimens. See Ward and Wilson (1978) for chi-squared procedures and Table 1 for information on bone samples.

Specimen	n	df	$T_{\text{crit}} (p < .05)$	T	Result
Comparing results from different labs and pre-treatments, splits from same bone sample					
<u>Hillsboro</u>					
Bison 1	3	2	5.99	3.43	No outliers
Sloth 1	3	2	5.99	4.21	No outliers
Mammoth 1	3	2	5.99	240.88	Outliers
<u>Tualatin</u>					
Mastodon 1	3	2	5.99	0.52	No outliers
<u>Tualatin River-Fanno Creek</u>					
Sloth 2	3	2	5.99	10.23	Outliers
<u>Woodburn-Legion Park</u>					
Horse 1	3	2	5.99	47.62	Outliers
Horse 2	3	2	5.99	7.52	Outliers
Bison 2	3	2	5.99	9.98	Outliers
Bison 3	3	2	5.99	8.43	Outliers
Bison 4	3	2	5.99	6.86	Outliers
<u>Woodburn High School</u>					
Bison 5	5	4	9.49	2.60	No outliers
Comparing XAD results for Woodburn-Legion Park Locality: testing whether separate bone specimens derive from the same individual					
Horse 1 vs Horse 2	2	1	3.84	27.75	Outliers
Bison 2 vs Bison 3	2	1	3.84	460.04	Outliers
Bison 2 vs Bison 4	2	1	3.84	561.98	Outliers
Bison 3 vs Bison 4	2	1	3.84	5.88	Outliers

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