Dataset S1: Body mass estimates in grams for all mammal species included in this study. Also included is the source of this measurement. PBDB = Paleobiology Database, NOW = Neogene Old World Database, EOL = Encyclopedia of Life, ADW = Animal Diversity Web. PBDB + regression indicates that body mass was estimated from a measurement on the PBDB using one of the many regression equations listed in Table S3.

Species	Mass (g)	Source
Aaptoryctes ivyi	215.70	PBDB + regression
Absarokius abbotti	176.39	PBDB + regression
Absarokius metoecus	166.29	PBDB + regression
Acarictis ryani	291.90	PBDB + regression
Achaenodon robustus	492900.83	PBDB + regression
Achlyoscapter longirostris	11.94	(*1*)
Acmeodon secans	325.36	PBDB + regression
Acritohippus isonesus	135944.23	(*1*)
Acritohippus quinni	178082.11	(*1*)
Acritoparamys atwateri	1.66	PBDB + regression
Acritoparamys francesi	1.57	PBDB + regression
Acritoparamys pattersoni	1.80	PBDB
Acritoparamys wyomingensis	1.73	PBDB
Adeloblarina berklandi	12.68	(*1*)
Adelphailurus kansensis	33189.87	(*1*)
Adilophontes brachykolos	119372.01	(*1*)
Adjidaumo burkei	0.46	PBDB
Adjidaumo craigi	0.69	PBDB + regression
Adjidaumo intermedius	0.85	PBDB + regression
Adjidaumo maximus	1.10	PBDB + regression
Adjidaumo minimus	0.69	PBDB + regression
Adjidaumo minutus	1.02	PBDB + regression
Adunator ladae	17.36	PBDB + regression
Aelurodon asthenostylus	22026.47	(*1*)
Aelurodon ferox	26370.47	(*1*)
Aelurodon mcgrewi	22247.84	(*1*)
Aelurodon montanensis	27722.51	(*1*)
Aelurodon stirtoni	20537.34	(*1*)
Aelurodon taxoides	29436.77	(*1*)
Aepinacodon americanus	423622.49	(*2*)
Aepycamelus bradyi	516464.33	(*3*)
Aepycamelus giraffinus	499050.27	PBDB
Aepycamelus robustus	420836.64	(*1*)
Aepycamelus stocki	348014.70	(*1*)
Aethomylos simplicidens	30.03	PBDB + regression
Ageitodendron matthewi	331.60	PBDB + regression
Agriochoerus antiquus	56387.34	(*1*)
Agriochoerus guyotianus	59000.00	(*4*)
Agriotherium schneideri	355045.06	(*1*)
Alagomys russelli	0.43	PBDB + regression

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Dataset S1 – continued from previous page

Species	Mass (g)	Source
Aletodon conardae	576.81	PBDB + regression
Aletodon gunnelli	615.51	PBDB + regression
Aletodon quadravus	365.67	PBDB + regression
Aletomeryx gracilis	27173.57	(*1*)
Alforjas taylori	408399.03	(*1*)
Alilepus vagus	225.12	PBDB + regression
Alilepus wilsoni	111.45	PBDB + regression
Allomys cristabrevis	1.70	PBDB + regression
Allomys simplicidens	122.00	(*4*)
Allomys storeri	1.51	PBDB + regression
Alluvisorex arcadentes	5.70	(*1*)
Alphagaulus pristinus	521.00	(*4*)
Alphagaulus vetus	523.22	(*1*)
Alticonus gazini	1140.52	PBDB + regression
Alveojunctus minutus	25.80	PBDB + regression
Alveugena carbonensis	815.39	PBDB
Alwoodia harkseni	1.74	PBDB + regression
Alwoodia magna	226.00	(*4*)
Amebelodon floridanus	37020787.90	PBDB + regression
Amelotabes simpsoni	57.16	PBDB + regression
Ammospermophilus hanfordi	58.00	(*4*)
Ammospermophilus junturensis	53.52	(*1*)
Amphechinus horncloudi	175.91	(*1*)
Amphicaenopus platycephalus	2397650.84	(*1*)
Amphicyon frendens	245241.81	(*1*)
Amphicyon galushai	138690.48	(*1*)
Amphicyon ingens	600000.00	(*5*)
Amphicyon longiramus	113550.16	(*1*)
Amphicyon riggsi	418398.16	PBDB
Amphimachairodus coloradensis	157147.46	PBDB + regression
Ampliconus antoni	2906.21	PBDB + regression
Amynodon advenus	1987010.17	PBDB + regression
Amynodon reedi	579004.85	PBDB
Amynodontopsis bodei	608129.44	PBDB + regression
Anaptomorphus aemulus	95.39	PBDB + regression
Anaptomorphus westi	186.75	PBDB + regression
Anasazia williamsoni	186.23	(*6*)
Anchitherium clarencei	230960.04	(*1*)
Anconodon cochranensis	57.00	(*7*)
Anemorhysis natronensis	32.59	PBDB + regression
Anemorhysis pattersoni	57.16	PBDB + regression
Anemorhysis pearcei	32.00	(*8*)
Anemorhysis wortmani	42.74	PBDB + regression
Angustidens vireti	18.17	(*1*)
Anisonchus oligistus	388.07	PBDB + regression
Anisonchus onostus	616.78	PBDB + regression
Anisonchus sectorius	1619.16	PBDB + regression

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Dataset S1 – continued from previous page

Species	Mass (g)	Source
Ankalagon saurognathus	28250.27	PBDB + regression
Ankylodon annectens	30.27	(*1*)
Anomoemys lewisi	1.67	(*9*)
Ansomys hepburnensis	44.70	(*1*)
Ansomys nevadensis	51.94	(*1*)
Ansomys nexodens	1.51	PBDB + regression
Antecalomys phthanus	22.87	(*1*)
Antecalomys valensis	13.60	(*1*)
Antecalomys vasquezi	10.70	PBDB
Antiacodon pygmaeus	464.26	PBDB + regression
Antiacodon venustus	2156.43	PBDB + regression
Apataelurus kayi	10833.16	PBDB + regression
Apatemys bellulus	17.36	PBDB + regression
Apatemys bellus	21.80	PBDB + regression
Apatemys chardini	14.63	PBDB + regression
Apatemys downsi	65.02	PBDB + regression
Apatemys hendryi	12.08	PBDB + regression
Apatemys uintensis	28.30	PBDB + regression
Apatosciuravus bifax	1.27	PBDB + regression
Apatosciuravus jacobsi	1.22	PBDB + regression
Apheliscus chydaeus	47.27	PBDB + regression
Apheliscus insidiosus	60.38	PBDB + regression
Apheliscus nitidus	77.18	PBDB + regression
Apheliscus wapitiensis	26.62	PBDB + regression
Aphelops malacorhinus	3541284.24	(*1*)
Aphelops megalodus	1689595.99	(*1*)
Aphelops mutilus	4325334.34	(*1*)
Aphronorus fraudator	112.44	PBDB + regression
Aphronorus orieli	427.05	PBDB + regression
Aphronorus ratatoski	176.14	PBDB + regression
Apletotomeus crassus	0.78	PBDB + regression
Apternodus gregoryi	90.14	PBDB + regression
Apternodus iliffensis	87.48	PBDB + regression
Arapahovius advena	42.74	PBDB + regression
Archaeocyon falkenbachi	2116.88	(*10*)
Archaeocyon leptodus	3533.34	(*1*)
Archaeocyon pavidus	2275.60	(*1*)
Archaeohippus blackbergi	33189.87	(*1*)
Archaeohippus mannulus	48917.80	PBDB + regression
Archaeohippus mourningi	54176.36	(*1*)
Archaeohippus penultimus	71682.36	(*1*)
Archaeohippus stenolophus	63678.98	PBDB
Archaeolagus acaricolus	578.25	(*1*)
Archaeolagus emeraldensis	2344.90	(*1*)
Archaeolagus ennisianus	1064.22	(*1*)
Archaeolagus macrocephalus	1826.21	(*1*)
Archaeolagus primigenius	1540.71	(*1*)

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Dataset S1 – continued from previous page

Species	Mass (g)	Source
Archaeotherium lemleyi	1361176.27	PBDB + regression
Archaeotherium mortoni	240808.54	PBDB + regression
Archaeotherium trippensis	3353590.86	PBDB + regression
Arctocyon montanensis	14771.98	PBDB + regression
Arctocyon mumak	57080.05	PBDB
Arctodontomys nuptus	318.11	PBDB + regression
Arctodontomys simplicidens	219.44	PBDB + regression
Arctodontomys wilsoni	236.68	PBDB + regression
Arctodus pristinus	299916.25	(*11*)
Arctonasua eurybates	15994.50	(*1*)
Arctonasua gracilis	8866.19	(*1*)
Arctonasua minima	7044.48	(*1*)
Arctostylops steini	512.92	PBDB + regression
Ardynomys occidentalis	1.67	PBDB + regression
Arfia junnei	1188.60	PBDB + regression
Arfia opisthotoma	11400.50	PBDB + regression
Arfia shoshoniensis	9550.20	PBDB + regression
Arfia zele	2236.53	PBDB + regression
Arretotherium acridens	179871.86	(*1*)
Arretotherium fricki	138690.48	(*1*)
Arretotherium leptodus	252848.32	PBDB
Artimonius australis	133.09	PBDB + regression
Artimonius nocerai	66.71	PBDB + regression
Artimonius witteri	91.55	PBDB + regression
Astrohippus stockii	134877.06	PBDB
Aulolithomys bounites	1.44	PBDB + regression
Aulolithomys vexilliames	1.06	PBDB + regression
Australocamelus orarius	100709.96	(*1*)
Auxontodon pattersoni	6261.76	PBDB + regression
Avunculus didelphodonti	60.38	PBDB + regression
Aycrossia lovei	124.23	PBDB + regression
Aztlanolagus agilis	1999.86	(*11*)
Azygonyx ancylion	15969.85	PBDB + regression
Azygonyx grangeri	24602.41	PBDB + regression
Azygonyx xenicus	7316.20	PBDB + regression
Baioconodon denverensis	4195.64	PBDB + regression
Baioconodon nordicus	1675.41	PBDB + regression
Baiomys rexroadi	0.69	PBDB + regression
Baiotomeus douglassi	192.03	PBDB + regression
Baiotomeus rhothonion	12.82	PBDB + regression
Barbourofelis fricki	255250.32	(*1*)
Barbourofelis loveorum	160091.76	PBDB + regression
Barbourofelis morrisi	90219.42	(*1*)
Barbourofelis osborni	162309.29	(*12*)
Barbourofelis whitfordi	77652.58	(*1*)
Barbouromeryx trigonocorneus	33860.35	(*1*)
Barylambda faberi	255787.00	PBDB + regression

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Dataset S1 – continued from previous page

Species	Mass (g)	Source
Barylambda jackwilsoni	43914.63	PBDB + regression
Basirepomys pliocenicus	1.45	PBDB + regression
Basirepomys robertsi	1.38	PBDB + regression
Bassariscus antiquus	1881.83	(*1*)
Bassariscus casei	1652.43	(*1*)
Bassariscus minimus	1183.06	(*13*)
Bassariscus ogallalae	1724.26	(*14*)
Bassariscus parvus	1685.81	(*1*)
Bathygenys alpha	6155.81	PBDB + regression
Bathygenys reevesi	5297.18	PBDB + regression
Batodonoides powayensis	3.14	PBDB + regression
Batodonoides vanhouteni	1.26	PBDB + regression
Beckiasorex hibbardi	6.56	PBDB + regression
Bensonomys arizonae	1.15	PBDB
Bensonomys baskini	1.19	PBDB
Bensonomys elachys	0.78	(*15*)
Bensonomys gidleyi	0.97	PBDB
Bensonomys lindsayi	0.78	PBDB + regression
Bensonomys meadensis	1.08	PBDB
Bensonomys winklerorum	0.79	PBDB
Bensonomys yazhi	0.83	(*16*)
Betonnia tsosia	50.22	(*17*)
Bisonalveus browni	90.14	PBDB + regression
Bisonalveus holtzmani	146.12	PBDB + regression
Blacktops latidens	344.57	PBDB
Blacktops longinares	255.48	PBDB
Blarina brevicauda	16.40	PBDB
Blarina carolinensis	13.49	(*11*)
Blastomeryx gemmifer	10938.02	(*1*)
Blastomeryx pristinus	38955.58	PBDB
Blickomylus galushai	16983.54	(*1*)
Boreameryx braskerudi	9643.88	PBDB + regression
Borophagus diversidens	34891.55	(*1*)
Borophagus dudleyi	94433.22	(*18*)
Borophagus hilli	29143.87	(*1*)
Borophagus littoralis	23388.51	(*1*)
Borophagus orc	16814.55	(*1*)
Borophagus parvus	19341.34	(*1*)
Borophagus pugnator	24100.79	(*1*)
Borophagus secundus	24100.79	(*1*)
Bothriodon rostratus	865704.50	(*19*)
Bouromeryx americanus	68186.37	(*1*)
Bouromeryx submilleri	50011.09	(*1*)
Brachycrus buwaldi	250196.03	(*1*)
Brachycrus laticeps	359952.66	PBDB
Brachycrus rusticus	117343.54	PBDB
Brachycrus siouense	145801.30	(*1*)

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Dataset S1 – continued from previous page

Species	Mass (g)	Source
Brachyerix hibbardi	78.19	(*20*)
Brachyerix incertis	79.84	(*1*)
Brachyerix macrotis	131.63	(*1*)
Brachyerix richi	340.36	(*1*)
Brachyhyops viensis	202519.16	PBDB + regression
Brachyhyops wyomingensis	97111.99	PBDB + regression
Brachypsalis modicus	512.86	(*1*)
Brachypsalis obliquidens	63169.09	PBDB
Brachypsalis pachycephalus	487.85	(*1*)
Brachyrhynchocyon dodgei	13906.88	PBDB + regression
Brachyrhynchocyon montanus	7397.01	PBDB + regression
Brontops tyleri	571500.00	PBDB
Buisnictis breviramus	849.04	PBDB + regression
Buisnictis burrowsi	817.07	PBDB
Buisnictis schoffi	22.42	(*1*)
Bunomeryx montanus	3196.73	PBDB + regression
Bunophorus etsagicus	13323.34	PBDB + regression
Bunophorus grangeri	13969.78	PBDB + regression
Bunophorus macropternus	10378.10	PBDB + regression
Bunophorus pattersoni	6332.74	(*21*)
Bunophorus robustus	5163.91	PBDB + regression
Bunophorus sinclairi	16312.82	PBDB + regression
Caenolambda jepseni	40906.63	PBDB + regression
Calippus cerasinus	81633.91	(*1*)
Calippus elachistus	43044.94	(*1*)
Calippus hondurensis	71682.36	(*1*)
Calippus martini	119372.01	(*1*)
Calippus placidus	79221.26	(*1*)
Calippus proplacidus	64860.88	(*1*)
Calippus regulus	45251.90	(*1*)
Camelops hesternus	1099005.84	(*11*)
Camelops traviswhitei	1027000.94	PBDB + regression
Campestrallomys annectens	1.48	PBDB + regression
Campestrallomys dawsonae	298.87	(*1*)
Campestrallomys siouxensis	159.17	(*1*)
Canis armbrusteri	30333.26	(*1*)
Canis edwardii	79873.95	PBDB + regression
Canis latrans	11765.00	PBDB
Canis lepophagus	14617.87	(*1*)
Canis rufus	15566.00	PBDB
Cantius abditus	2798.04	PBDB + regression
Cantius angulatus	417.80	PBDB + regression
Cantius frugivorus	913.71	PBDB + regression
Cantius mckennai	902.97	PBDB + regression
Cantius nunienus	1212.97	PBDB + regression
Cantius ralstoni	738.98	PBDB + regression
Cantius simonsi	3858.47	PBDB + regression

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Dataset S1 – continued from previous page

Species	Mass (g)	Source
Cantius torresi	410.27	PBDB + regression
Cantius trigonodus	2000.00	(*22*)
Capricamelus gettyi	361557.35	PBDB + regression
Capromeryx tauntonensis	15835.35	(*1*)
Cardiolophus radinskyi	32305.76	PBDB + regression
Cardiolophus semihians	33364.14	PBDB + regression
Carpocristes cygneus	25.80	PBDB + regression
Carpocristes hobackensis	33.00	(*22*)
Carpocyon compressus	15214.44	(*1*)
Carpocyon robustus	19341.34	(*1*)
Carpocyon webbi	20537.34	(*1*)
Carpodaptes hazelae	51.17	PBDB + regression
Carpodaptes stonleyi	32.59	PBDB + regression
Carpolestes nigridens	87.00	(*23*)
Carpolestes simpsoni	27.99	PBDB + regression
Carpomegodon jepseni	166.29	PBDB + regression
Catopsalis alexanderi	3415.85	PBDB + regression
Catopsalis calgariensis	22815.78	PBDB + regression
Catopsalis foliatus	7371.53	PBDB + regression
Catopsalis joyneri	2435.00	(*7*)
Cedromus wardi	1.71	PBDB + regression
Centetodon aztecus	17.36	PBDB + regression
Centetodon bembicophagus	10.87	PBDB + regression
Centetodon chadronensis	23.37	PBDB + regression
Centetodon divaricatus	30.57	(*1*)
Centetodon hendryi	17.36	PBDB + regression
Centetodon kuenzii	26.62	PBDB + regression
Centetodon magnus	33.45	(*1*)
Centetodon neashami	53.67	PBDB + regression
Centetodon pulcher	30.03	PBDB + regression
Centimanomys major	1.70	PBDB + regression
Ceratogaulus hatcheri	1490.63	(*19*)
Cernictis hesperus	177.68	(*1*)
Cernictis repenningi	8800.69	(*24*)
Chacomylus sladei	151.65	PBDB + regression
Chadrolagus emryi	63.45	PBDB + regression
Chalicomomys willwoodensis	4.06	PBDB + regression
Chasmaporthetes ossifragus	107821.85	PBDB + regression
Chipetaia lamporea	417.80	PBDB + regression
Chiromyoides caesor	219.44	PBDB + regression
Chiromyoides minor	70.04	PBDB + regression
Chiromyoides potior	202.80	PBDB + regression
Chriacus badgleyi	1200.76	PBDB + regression
Chriacus baldwini	1550.07	PBDB + regression
Chriacus gallinae	1468.97	PBDB + regression
Chriacus pelvidens	5047.26	PBDB + regression
Chumashius balchi	111.45	PBDB + regression

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Dataset S1 – continued from previous page

Species	Mass (g)	Source
Churcheria baroni	1.37	PBDB + regression
Cimexomys minor	27.99	PBDB + regression
Cimolestes incisus	204.60	PBDB + regression
Colodon cingulatus	222816.55	PBDB
Colodon kayi	49060.48	PBDB + regression
Colodon occidentalis	110573.45	PBDB + regression
Colodon stovalli	57498.66	PBDB + regression
Colodon woodi	85748.60	PBDB + regression
Conacodon cophater	236.68	PBDB + regression
Conacodon delphae	3318.67	PBDB + regression
Conacodon entoconus	2268.93	PBDB + regression
Conacodon kohlbergeri	590.00	PBDB + regression
Conoryctes comma	16724.87	PBDB + regression
Copecion brachypternus	4501.11	PBDB + regression
Copecion davisi	2798.04	PBDB + regression
Copedelphys innominata	23.70	PBDB + regression
Copedelphys titanelix	6.11	PBDB + regression
Copelemur australotutus	1633.14	PBDB + regression
Copelemur tutus	1864.20	PBDB + regression
Copemys barstowensis	32.14	(*1*)
Copemys esmeraldensis	27.94	(*1*)
Copemys lindsayi	14.88	(*1*)
Copemys longidens	26.84	(*1*)
Copemys loxodon	28.79	(*1*)
Copemys mariae	31.50	(*1*)
Copemys pagei	15.18	(*1*)
Copemys russelli	24.29	(*1*)
Copemys shotwelli	0.85	PBDB + regression
Copemys tenuis	23.34	(*1*)
Coriphagus encinensis	254.29	PBDB + regression
Coriphagus montanus	130.39	PBDB + regression
Cormocyon copei	4817.45	(*1*)
Cormocyon haydeni	4359.01	(*1*)
Coryphodon armatus	351055.71	PBDB + regression
Coryphodon eocaenus	218518.57	PBDB + regression
Coryphodon lobatus	570461.25	PBDB + regression
Coryphodon proterus	479331.19	PBDB + regression
Coryphodon radians	339220.51	PBDB + regression
Cosoryx cerroensis	16814.55	(*1*)
Cosoryx furcatus	13678.75	PBDB
Cranioceras clarendonensis	89936.76	PBDB + regression
Cranioceras teres	96761.07	(*1*)
Cranioceras unicornis	134591.56	(*1*)
Cratogeomys sansimonensis	1.60	PBDB + regression
Crucimys milleri	36.60	(*1*)
Crypholestes vaughni	18.68	PBDB
Cryptotis adamsi	13.33	(*1*)

Continued on next page

Dataset S1 – continued from previous page

Species	Mass (g)	Source
Cryptotis kansasensis	33.60	PBDB + regression
Cryptotis parva	4.10	PBDB
Cupidinimus avawatzensis	20.09	(*1*)
Cupidinimus bidahochiensis	27.39	(*1*)
Cupidinimus boronensis	14.59	(*1*)
Cupidinimus eurekensis	0.09	PBDB
Cupidinimus halli	0.85	PBDB + regression
Cupidinimus lindsayi	7.61	(*1*)
Cupidinimus madisonensis	0.86	PBDB
Cupidinimus magnus	1.13	PBDB + regression
Cupidinimus nebraskensis	9.30	(*1*)
Cupidinimus prattensis	21.33	(*1*)
Cupidinimus tertius	16.44	(*1*)
Cupidinimus whitlocki	16.78	(*1*)
Cuvieronius tropicus	56818220.68	PBDB + regression
Cuyamalagus dawsoni	639.06	(*1*)
Cylindrodon fontis	1.50	PBDB + regression
Cylindrodon nebraskensis	1.63	PBDB + regression
Cynarctoides acridens	2921.93	(*1*)
Cynarctoides gawnae	2643.87	(*1*)
Cynarctoides harlowi	1863.11	(*1*)
Cynarctoides lemur	2321.57	(*1*)
Cynarctoides luskensis	2392.27	(*1*)
Cynarctoides roii	1826.21	(*1*)
Cynarctus crucidens	4964.16	(*1*)
Cynarctus galushai	9228.02	(*1*)
Cynarctus saxatilis	10097.06	(*1*)
Cynelos caroniavorus	16647.24	(*1*)
Cynelos idoneus	105873.47	(*1*)
Cynelos sinapius	213202.99	(*1*)
Cynodesmus martini	14185.85	(*1*)
Cynodesmus thooides	9228.02	(*1*)
Cynorca occidentale	20537.34	(*1*)
Cynorca sociale	34624.09	PBDB + regression
Cyriacotherium psamminum	3551.95	PBDB
Dakotallomys lillegraveni	1.66	PBDB
Dakotallomys pelycomyoides	1.70	(*25*)
Daphoenodon falkenbachi	137310.49	(*1*)
Daphoenodon notionastes	43477.55	(*1*)
Daphoenodon superbus	77652.58	(*1*)
Daphoenus hartshornianus	13329.17	PBDB + regression
Daphoenus lambei	7397.01	PBDB + regression
Daphoenus ruber	12767.60	PBDB + regression
Daphoenus socialis	13000.00	(*4*)
Daphoenus vetus	19535.72	(*1*)
Dartonius jepseni	10.52	(*26*)
Dasypus bellus	44977.99	(*11*)

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Dataset S1 – continued from previous page

Species	Mass (g)	Source
Delahomeryx browni	38948.67	(*1*)
Desmatippus avus	179871.86	(*1*)
Desmatippus texanus	102452.28	PBDB
Desmatochoerus hesperus	239142.20	(*27*)
Desmatochoerus megalodon	335100.00	(*4*)
Desmatoclaenus hermaeus	11400.50	PBDB + regression
Desmatolagus schizopetrus	198.46	PBDB
Desmocyon matthewi	8103.08	(*1*)
Desmocyon thomsoni	6974.39	(*1*)
Diacocherus meizon	23.70	PBDB + regression
Diacocherus minutus	45.48	PBDB + regression
Diacodexis gracilis	788.63	PBDB + regression
Diacodexis kelleyi	1550.07	PBDB + regression
Diacodexis metsiacus	1176.50	PBDB + regression
Diacodexis minutus	555.14	PBDB + regression
Diacodexis primus	1389.84	PBDB + regression
Diacodexis secans	2124.77	PBDB + regression
Diacodon alticuspis	324.82	PBDB + regression
Diceratherium annectens	864580.76	(*1*)
Diceratherium armatum	3541284.24	(*1*)
Diceratherium gregorii	946518.90	PBDB + regression
Diceratherium niobrarense	2105366.25	(*1*)
Diceratherium tridactylum	965112.54	(*1*)
Didelphodus absarokae	361.10	PBDB + regression
Didelphodus altidens	246.37	PBDB + regression
Didelphodus rheos	139.74	PBDB + regression
Didelphodus serus	133.48	PBDB + regression
Didymictis altidens	30566.06	PBDB
Didymictis leptomylus	3213.72	PBDB + regression
Didymictis protenus	7205.96	PBDB + regression
Didymictis proteus	3605.48	PBDB + regression
Didymictis vancleveae	65421.88	(*28*)
Dikkomys matthewi	47.47	(*1*)
Dillerlemur pagei	133.09	PBDB + regression
Dilophodon destitutus	369866.51	(*29*)
Dilophodon minusculus	27074.75	PBDB + regression
Dinaelurus crassus	37320.00	(*4*)
Dinofelis palaeoonca	70032.50	PBDB + regression
Dinohippus interpolatus	257815.63	(*1*)
Dinohippus leardi	392385.48	(*1*)
Dinohippus leidyanus	229900.00	(*30*)
Dinohippus mexicanus	609259.77	(*1*)
Dinohippus spectans	536500.00	(*4*)
Dinohyus hollandi	2032979.00	PBDB + regression
Diplobunops matthewi	100751.34	PBDB + regression
Dipodomys compactus	49.20	(*11*)
Dipodomys gidleyi	1.06	PBDB + regression

Continued on next page

Dataset S1 – continued from previous page

Species	Mass (g)	Source
Dipodomys hibbardi	17.81	(*1*)
Diprionomys agrarius	1.22	PBDB + regression
Diprionomys parvus	11.00	(*4*)
Dipsalidictis aequidens	42263.45	PBDB + regression
Dipsalidictis platypus	8936.27	PBDB + regression
Dipsalidictis transiens	22310.00	PBDB + regression
Dipsalodon churchillorum	26647.76	PBDB + regression
Dipsalodon matthewi	66505.41	PBDB + regression
Dissacus navajovius	6299.67	PBDB + regression
Dissacus praenuntius	14804.22	PBDB + regression
Domnina dakotensis	28.50	(*1*)
Domnina gradata	36.60	(*1*)
Domnina greeni	33.78	(*1*)
Domnina thompsoni	20.28	PBDB + regression
Domninoides hessei	149.90	(*1*)
Domninoides knoxjonesi	31.40	PBDB
Domninoides mimicus	135.64	(*1*)
Domninoides riparensis	56.83	(*1*)
Dorraletes diminutivus	37.32	PBDB + regression
Douglassciurus jeffersoni	1.77	(*25*)
Downsimus chadwicki	56.26	(*1*)
Drepanomeryx falciformis	90219.42	(*1*)
Dromomeryx borealis	144350.55	(*1*)
Dryomomys dulcifer	4.58	(*31*)
Dryomomys szalayi	6.07	(*31*)
Duchesneodus uintensis	2406372.12	PBDB + regression
Dyseohyus fricki	21807.30	(*1*)
Dyseolemur pacificus	70.04	PBDB + regression
Ectocion cedrus	4839.14	PBDB + regression
Ectocion collinus	5869.11	PBDB + regression
Ectocion major	12433.55	PBDB + regression
Ectocion mediotuber	5451.18	PBDB + regression
Ectocion osbornianus	6800.01	PBDB + regression
Ectocion parvus	3109.34	PBDB + regression
Ectocion superstes	13800.02	PBDB + regression
Ectoconus ditrigonus	22355.77	PBDB + regression
Ectoganus gliriformes	51205.04	(*31*)
Ectoganus gliriformis	51205.04	PBDB + regression
Ectopocynus antiquus	8266.78	(*1*)
Ectopocynus intermedius	12456.53	(*1*)
Ectypodus aphronorus	18.00	(*7*)
Ectypodus childei	14.42	PBDB + regression
Ectypodus lovei	14.42	PBDB + regression
Ectypodus musculus	30.25	PBDB + regression
Ectypodus powelli	19.74	PBDB + regression
Ectypodus szalayi	17.88	PBDB + regression
Ectypodus tardus	16.11	PBDB + regression

Continued on next page

Dataset S1 – continued from previous page

Species	Mass (g)	Source
Edworthia lerbekmoi	23.70	PBDB + regression
Ekgmowechashala philotau	2079.74	(*1*)
Elomeryx armatus	157944.66	(*1*)
Elphidotarsius florencae	17.88	PBDB + regression
Elphidotarsius russelli	23.70	PBDB + regression
Elphidotarsius wightoni	27.99	PBDB + regression
Elpidophorus elegans	829.40	PBDB + regression
Elpidophorus minor	151.65	PBDB + regression
Elwynella oreas	99.30	PBDB + regression
Elymys complexus	0.58	PBDB + regression
Enhydritherium terraenovae	22180.76	PBDB + regression
Enhydrocyon basilatus	20332.99	(*1*)
Enhydrocyon crassidens	18582.95	(*1*)
Enhydrocyon pahinsintewakpa	14764.78	(*1*)
Enhydrocyon stenocephalus	14044.69	(*1*)
Entoptychus grandiplanus	59.74	(*1*)
Entoptychus individens	84.00	(*4*)
Entoptychus planifrons	134.29	(*1*)
Entoptychus sheppardi	94.63	(*1*)
Entoptychus wheelerensis	84.00	(*4*)
Eoconodon gaudrianus	3093.31	(*32*)
Eoconodon hutchisoni	9450.73	PBDB
Eoconodon nidhoggi	1665.06	PBDB + regression
Eohaplomys matutinus	1.99	PBDB + regression
Eohaplomys serus	1.93	PBDB + regression
Eohaplomys tradux	1.89	PBDB + regression
Eomoropus amarorum	67651.40	PBDB + regression
Eoryctes melanus	53.67	PBDB + regression
Eotitanops borealis	240072.90	PBDB + regression
Eotitanops minimus	43277.45	PBDB + regression
Eotitanotherium osborni	1484895.52	PBDB
Eotylopus reedi	38563.77	PBDB + regression
Epeiromys spanius	1.53	PBDB + regression
Epicyon haydeni	41772.77	(*1*)
Epicyon saevus	27722.51	(*1*)
Epihippus gracilis	18366.29	PBDB + regression
Epihippus intermedius	21835.02	PBDB
Epitriplopus uintensis	32600.00	(*30*)
Eporeodon occidentalis	118300.00	(*4*)
Equus complicatus	399944.75	(*11*)
Equus conversidens	306196.34	(*11*)
Equus cumminsii	314354.39	PBDB + regression
Equus francisci	217178.22	PBDB + regression
Equus fromanius	172311.00	(*4*)
Equus giganteus	399944.75	(*11*)
Equus idahoensis	629100.30	PBDB + regression
Equus leidyi	291150.23	PBDB + regression

Continued on next page

Dataset S1 – continued from previous page

Species	Mass (g)	Source
Equus occidentalis	574116.46	(*11*)
Equus scotti	554625.71	(*11*)
Equus simplicidens	296558.57	(*1*)
Eremotherium eomigrans	2584400.00	(*33*)
Eremotherium laurillardi	799834.26	(*11*)
Erethizon bathygnathum	2.21	PBDB + regression
Erethizon kleini	2.11	PBDB + regression
Escavadodon zygus	137.63	PBDB + regression
Esthonyx acutidens	7159.09	PBDB + regression
Esthonyx bisulcatus	3066.57	PBDB + regression
Esthonyx spatularius	4505.96	PBDB + regression
Eucyon davisi	10509.13	(*1*)
Eudaemonema cuspidata	529.62	PBDB + regression
Eumys brachyodus	126.47	(*1*)
Eumys elegans	1.54	PBDB + regression
Euoplocyon brachygnathus	11271.13	(*1*)
Euoplocyon spissidens	9798.65	(*1*)
Eusmilus cerebralis	804.32	(*1*)
Eusmilus sicarius	34789.94	PBDB + regression
Eutypomys acares	1.49	PBDB + regression
Eutypomys hibernodus	1.89	PBDB + regression
Eutypomys inexpectatus	1.88	PBDB + regression
Eutypomys montanensis	943.88	(*1*)
Eutypomys obliquidens	1.67	PBDB + regression
Eutypomys parvus	1.72	PBDB + regression
Eutypomys thomsoni	1.85	PBDB + regression
Fanimus clasoni	1.50	PBDB
Fanimus ultimus	164.02	(*1*)
Felis rexroadensis	30333.26	(*1*)
Ferinestrix vorax	29333.85	PBDB
Florentiamys agnewi	84.77	(*1*)
Florentiamys kinseyi	157.59	(*1*)
Florentiamys loomisi	151.41	(*1*)
Florentiamys tiptoni	117.92	(*1*)
Floridachoerus olseni	35596.41	(*1*)
Floridameryx floridanus	8184.52	(*1*)
Floridatragulus dolichanthereus	43477.55	(*1*)
Floridatragulus texanus	61083.68	(*1*)
Fouchia elyensis	10126.74	PBDB + regression
Galbreathia bettae	165.67	(*1*)
Galbreathia novellus	1.72	PBDB
Galecyon mordax	1984.90	PBDB + regression
Gazinius amplus	875.00	(*22*)
Gazinocyon vulpeculus	5070.63	PBDB + regression
Gelastops joni	183.10	PBDB + regression
Gelastops parcus	149.35	PBDB + regression
Geomys carranzai	1.22	PBDB + regression

Continued on next page

Dataset S1 – continued from previous page

Species	Mass (g)	Source
Geringia gloveri	26.84	(*1*)
Geringia mcgregori	41.26	(*1*)
Gigantocamelus spatulus	2615036.35	PBDB + regression
Glossotherium chapadmalense	310540.00	(*33*)
Glyptotherium arizonae	789680.00	(*33*)
Gomphotherium obscurum	50047676.55	PBDB
Gomphotherium osborni	24506452.87	(*34*)
Goniodontomys disjunctus	44.26	(*1*)
Gracilocyon winkleri	690.80	PBDB + regression
Grangeria anarsius	65434.40	PBDB + regression
Gregorymys curtus	106.70	(*1*)
Gregorymys formosus	77.48	(*1*)
Gregorymys riograndensis	43.82	(*1*)
Gripholagomys lavocati	507.76	(*1*)
Griphomys alecer	1.02	PBDB + regression
Griphomys toltecus	1.18	(*25*)
Guanajuatomys hibbardi	1.63	PBDB + regression
Guildayomys hibbardi	82.27	(*1*)
Hapalodectes anthracinus	352.26	PBDB + regression
Hapalodectes leptognathus	617.19	PBDB + regression
Haplaletes disceptatrix	84.86	PBDB + regression
Haplaletes pelicatus	130.39	PBDB + regression
Haploconus angustus	1200.76	PBDB + regression
Haplohippus texanus	23265.89	PBDB + regression
Haplolambda quinni	53092.09	PBDB
Haplolambda simpsoni	138271.36	(*35*)
Haplomylus bozemanensis	87.48	PBDB + regression
Haplomylus palustris	72.22	PBDB + regression
Haplomylus scottianus	115.36	PBDB + regression
Haplomylus simpsoni	162.53	PBDB + regression
Haplomylus speirianus	98.28	PBDB + regression
Haplomys galbreathi	1.29	PBDB + regression
Haplomys liolophus	39.00	(*4*)
Harpagolestes leotensis	138880.62	PBDB + regression
Harpagolestes uintensis	106686.23	PBDB + regression
Harrymys irvini	83.93	(*1*)
Harrymys magnus	50.40	(*1*)
Harrymys woodi	1.33	(*15*)
Heliscomys hatcheri	0.68	(*7*)
Heliscomys ostranderi	0.24	PBDB + regression
Heliscomys senex	0.43	PBDB + regression
Heliscomys vetus	0.43	PBDB + regression
Heliscomys woodi	0.85	PBDB + regression
Hemiacodon engardae	538.07	PBDB + regression
Hemiacodon gracilis	563.76	PBDB + regression
Hemiauchenia gracilis	157598.86	PBDB + regression
Hemiauchenia macrocephala	109900.58	(*11*)

Continued on next page

Dataset S1 – continued from previous page

Species	Mass (g)	Source
Hemiauchenia minima	85819.37	(*1*)
Hemiauchenia vera	243143.10	PBDB + regression
Hemipsalodon grandis	436751.47	(*36*)
Hemithlaeus harbourae	1283.98	(*37*)
Hendryomeryx defordi	5742.28	PBDB
Hendryomeryx esulcatus	6619.36	PBDB + regression
Hendryomeryx wilsoni	3001.58	PBDB + regression
Heptacodon pellionis	88438.62	PBDB + regression
Heptodon calciculus	26551.76	PBDB + regression
Herpetotherium fugax	19.74	PBDB + regression
Herpetotherium knighti	51.17	PBDB + regression
Herpetotherium merriami	25.80	PBDB + regression
Herpetotherium valens	57.16	PBDB + regression
Herpetotherium youngi	40.09	PBDB + regression
Hesperhys pinensis	68186.37	(*1*)
Hesperhys vagrans	73865.41	(*1*)
Hesperocyon gregarius	3533.34	(*1*)
Hesperolagomys fluviatilis	169.02	(*1*)
Hesperolagomys galbreathi	149.90	(*1*)
Hesperoscalops mcgrewi	186.62	PBDB + regression
Heteraletes leotanus	14016.35	PBDB + regression
Heteromeryx dispar	51072.86	PBDB + regression
Heteropliohippus hulberti	302549.45	(*1*)
Hexacodus pelodes	625.82	PBDB + regression
Hexameryx simpsoni	30638.11	(*1*)
Hexobelomeryx fricki	59621.29	PBDB + regression
Hibbarderix obfuscatus	33.60	PBDB + regression
Hibbardomys fayae	1.41	PBDB + regression
Hibbardomys marthae	1.49	PBDB + regression
Hibbardomys skinneri	1.41	PBDB + regression
Hibbardomys voorhiesi	1.41	PBDB + regression
Hipparion forcei	194852.86	(*1*)
Hipparion tehonense	100709.96	(*1*)
Hippotherium emsliei	201622.66	PBDB + regression
Hippotherium ingenuum	109258.44	PBDB + regression
Hippotherium plicatile	165091.29	PBDB + regression
Hippotherium quinni	422193.86	PBDB + regression
Hitonkala macdonaldtau	24.53	(*1*)
Holmesina floridanus	68696.59	PBDB + regression
Homacodon vagans	6691.69	PBDB + regression
Homogalax protapirinus	19815.58	PBDB + regression
Homotherium crusafonti	233968.19	PBDB
Homotherium idahoensis	257900.00	(*4*)
Homotherium johnstoni	124571.99	PBDB + regression
Hoplophoneus mentalis	48420.73	PBDB + regression
Hoplophoneus primaevus	20243.49	PBDB + regression
Huerfanodon polecatensis	29749.42	PBDB + regression

Continued on next page

Dataset S1 – continued from previous page

Species	Mass (g)	Source
Huerfanodon torrejonius	20823.53	PBDB + regression
Hyaenodon brevirostrus	37331.34	PBDB + regression
Hyaenodon crucians	14771.98	PBDB + regression
Hyaenodon horridus	91750.41	PBDB + regression
Hyaenodon montanus	28357.49	PBDB + regression
Hyaenodon mustelinus	8079.01	PBDB + regression
Hyaenodon raineyi	1093.34	PBDB + regression
Hyaenodon venturae	2552.88	PBDB + regression
Hyaenodon vetus	33333.28	PBDB + regression
Hylomeryx quadricuspis	4966.19	PBDB + regression
Hyopsodus fastigatus	1894.05	PBDB + regression
Hyopsodus lepidus	625.82	PBDB + regression
Hyopsodus loomisi	488.31	PBDB + regression
Hyopsodus lysitensis	924.51	PBDB + regression
Hyopsodus mentalis	1482.35	PBDB + regression
Hyopsodus minor	440.75	PBDB + regression
Hyopsodus minusculus	440.75	PBDB + regression
Hyopsodus paulus	768.59	PBDB + regression
Hyopsodus pauxillus	181.54	PBDB + regression
Hyopsodus powellianus	1416.00	PBDB + regression
Hyopsodus simplex	729.22	PBDB + regression
Hyopsodus tonksi	464.26	PBDB + regression
Hyopsodus uintensis	1495.78	PBDB + regression
Hyopsodus walcottianus	6172.52	PBDB + regression
Hyopsodus wortmani	798.73	PBDB + regression
Hypertragulus calcaratus	8880.00	(*4*)
Hypertragulus hesperius	4572.00	(*4*)
Hypohippus affinis	442413.39	(*1*)
Hypohippus equinus	271034.12	(*1*)
Hypohippus osborni	299539.03	(*1*)
Hypolagus edensis	665.14	(*1*)
Hypolagus fontinalis	1211.97	(*1*)
Hypolagus furlongi	678.58	(*1*)
Hypolagus gidleyi	1998.20	(*1*)
Hypolagus oregonensis	2344.90	(*1*)
Hypolagus parviplicatus	1702.75	(*1*)
Hypolagus ringoldensis	319.00	(*4*)
Hypolagus vetus	2892.86	(*1*)
Hypolagus voorhiesi	319.00	(*4*)
Hypsiops bannackensis	146895.45	(*38*)
Hypsiops breviceps	156373.08	(*1*)
Hyrachyus affinis	111138.67	PBDB + regression
Hyrachyus eximius	198513.08	PBDB + regression
Hyrachyus modestus	217770.66	PBDB + regression
Hyracodon leidyanus	459564.25	PBDB + regression
Hyracodon medius	102488.96	PBDB + regression
Hyracodon nebraskensis	211081.59	(*1*)

Continued on next page

Dataset S1 – continued from previous page

Species	Mass (g)	Source
Hyracodon petersoni	313951.52	PBDB + regression
Hyracodon priscidens	351463.36	PBDB + regression
Hyracotherium cristatum	23898.63	PBDB
Hyracotherium vasacciense	24900.00	(*30*)
Ictidopappus mustelinus	354.83	PBDB + regression
Ignacius fremontensis	19.74	PBDB + regression
Ignacius frugivorus	73.44	PBDB + regression
Ignacius graybullianus	128.62	PBDB + regression
Indarctos nevadensis	376215.79	PBDB + regression
Indarctos oregonensis	302549.45	(*1*)
Ischyrocyon gidleyi	282095.23	(*1*)
Ischyromys typus	1.89	PBDB + regression
Ischyromys veterior	1.82	PBDB + regression
Jacobsomys verdensis	50.91	(*1*)
Janimus dawsonae	1.06	PBDB + regression
Jaywilsonomys ojinagaensis	1.92	PBDB + regression
Jemezius szalayi	95.39	PBDB + regression
Jepsenella praepropera	18.80	PBDB + regression
Jimomys labaughi	69.41	(*1*)
Jimomys lulli	28.00	(*4*)
Kansasimys dubius	135.64	(*1*)
Kansasimys wilsoni	1.69	(*39*)
Kimbetohia mziae	72.00	(*7*)
Knightomys cremneus	1.20	PBDB + regression
Knightomys cuspidatus	1.36	PBDB
Knightomys depressus	1.43	PBDB + regression
Knightomys huerfanensis	1.59	PBDB + regression
Knightomys minor	1.20	PBDB + regression
Knightomys reginensis	0.85	PBDB + regression
Knightomys senior	1.33	PBDB + regression
Kolponomos clallamensis	103303.51	(*40*)
Kolponomos newportensis	876418.72	(*41*)
Kyptoceras amatorum	369534.73	(*1*)
Labidolemur kayi	33.60	PBDB + regression
Labidolemur serus	67.38	PBDB + regression
Labidolemur soricoides	14.63	PBDB + regression
Lambdotherium popoagicum	29620.91	PBDB + regression
Lambertocyon eximius	6045.26	PBDB + regression
Lambertocyon ischyrus	2015.61	PBDB + regression
Lanthanotherium sawini	90.14	PBDB + regression
Laredochoerus edwardsi	5523.91	PBDB + regression
Laredomys riograndensis	0.58	PBDB + regression
Leidymys cerasus	41.68	(*1*)
Leidymys korthi	1.27	PBDB + regression
Leipsanolestes siegfriedti	26.62	PBDB + regression
Lemoynea biradicularis	45.60	(*1*)
Lepoides lepoides	3640.95	(*1*)

Continued on next page

Dataset S1 – continued from previous page

Species	Mass (g)	Source
Leptacodon munusculum	6.56	PBDB + regression
Leptacodon packi	14.63	PBDB + regression
Leptacodon tener	8.61	PBDB + regression
Leptarctus mummorum	8673.78	PBDB + regression
Leptarctus oregonensis	2580.00	(*4*)
Leptarctus primus	149.90	(*1*)
Leptarctus supremus	7725.15	PBDB
Leptauchenia decora	20130.67	(*1*)
Leptauchenia major	30946.03	(*1*)
Leptictis dakotensis	644.52	PBDB + regression
Leptochoerus elegans	8623.90	PBDB + regression
Leptochoerus spectabilis	9021.94	PBDB + regression
Leptochoerus supremus	19397.68	PBDB + regression
Leptocyon mollis	3300.00	(*4*)
Leptocyon vafer	5377.61	(*1*)
Leptodontomys douglassi	0.43	PBDB + regression
Leptodontomys stirtoni	0.69	(*42*)
Leptolambda schmidti	90362.43	(*43*)
Leptomeryx blacki	4578.72	PBDB + regression
Leptomeryx elissae	6511.38	PBDB + regression
Leptomeryx evansi	9426.05	PBDB + regression
Leptomeryx mammifer	18828.04	PBDB + regression
Leptomeryx speciosus	9223.24	PBDB + regression
Leptomeryx yoderi	10716.49	PBDB + regression
Leptoreodon edwardsi	13277.57	PBDB + regression
Leptoreodon leptolophus	9223.24	PBDB + regression
Leptoreodon major	32615.84	PBDB + regression
Leptoreodon marshi	20660.42	PBDB + regression
Leptoreodon pusillus	3957.21	PBDB + regression
Leptoreodon stocki	20980.32	PBDB + regression
Leptoromys wilsoni	1.55	PBDB + regression
Leptotomus caryophilus	1.91	PBDB + regression
Leptotomus leptodus	2.07	PBDB + regression
Leptotomus parvus	1.92	PBDB + regression
Leptotragulus clarki	5364.24	PBDB + regression
Leptotragulus medius	13323.34	PBDB + regression
Leptotragulus proavus	11797.49	PBDB + regression
Lepus californicus	2288.00	PBDB
Lignimus austridakotensis	14.88	(*1*)
Lignimus montis	1.29	PBDB + regression
Limaconyssus habrus	18.80	PBDB + regression
Limnoecus niobrarensis	7.17	(*1*)
Limnoecus tricuspis	5.10	(*1*)
Liodontia alexandrae	198.34	(*1*)
Litaletes disjunctus	681.34	PBDB + regression
Litocherus lacunatus	84.86	PBDB + regression
Litocherus notissimus	37.32	PBDB + regression

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Dataset S1 – continued from previous page

Species	Mass (g)	Source
Litocherus zygeus	55.87	PBDB + regression
Litolagus molidens	103.28	PBDB + regression
Litolestes ignotus	18.80	PBDB + regression
Litomylus dissentaneus	124.29	PBDB + regression
Litomylus orthronepius	115.36	PBDB + regression
Litoyoderimys auogoleus	1.35	PBDB + regression
Longirostromeryx clarendonensis	13226.80	(*1*)
Longirostromeryx wellsi	17500.77	(*1*)
Lophiparamys debequensis	1.22	PBDB + regression
Lophiparamys murinus	1.50	PBDB + regression
Loveina minuta	45.48	PBDB + regression
Loveina zephyri	66.71	PBDB + regression
Loxolophus criswelli	2140.57	PBDB + regression
Loxolophus hyattianus	1984.90	PBDB + regression
Loxolophus pentacus	14847.99	PBDB + regression
Loxolophus priscus	3899.92	PBDB + regression
Loxolophus schizophrenus	881.66	PBDB + regression
Loxolophus spiekeri	18323.92	PBDB + regression
Lutravus halli	454.86	(*1*)
Lycophocyon hutchisoni	4865.03	PBDB + regression
Lynx proterolyncis	15677.78	(*1*)
Lynx rufus	10482.00	PBDB
Machaeromeryx gilchristensis	4536.90	(*1*)
Machaeromeryx tragulus	4536.90	(*1*)
Macrocranion junnei	15.97	PBDB + regression
Macrocranion nitens	33.60	PBDB + regression
Macrogenis crassigenis	106737.50	PBDB
Macrognathomys gemmacolis	0.58	PBDB + regression
Macrognathomys nanus	5.16	(*1*)
Macrotarsius montanus	1152.46	PBDB + regression
Macrotarsius roederi	1640.00	(*22*)
Macrotarsius siegerti	1188.60	PBDB + regression
Mahgarita stevensi	358.28	(*44*)
Malaquiferus tourteloti	14816.10	PBDB + regression
Mammacyon obtusidens	70262.96	(*1*)
Mammut americanum	4528975.80	(*11*)
Mammut cosoensis	29076021.42	(*45*)
Mammut furlongi	29535033.05	PBDB + regression
Mammuthus columbi	7998342.55	(*11*)
Mammut raki	41795334.69	PBDB + regression
Marmota korthi	2038.56	(*1*)
Marmota vetus	658.52	(*1*)
Martes gazini	1767.00	(*4*)
Martes parviloba	5831.67	(*46*)
Martinogale alveodens	17.99	(*1*)
Mattimys kalicola	1.25	PBDB + regression
Megacamelus merriami	1905014.16	(*1*)

Continued on next page

Dataset S1 – continued from previous page

Species	Mass (g)	Source
Megadelphus lundeliusi	3614.01	PBDB + regression
Megahippus matthewi	882046.45	(*1*)
Megalagus abaconis	1118.79	(*1*)
Megalagus brachyodon	373.57	PBDB + regression
Megalagus primitivus	3165.29	(*1*)
Megalagus turgidus	3071.74	(*1*)
Megalesthonyx hopsoni	15975.00	(*47*)
Megalictis ferox	1587.63	(*1*)
Megalictis frazieri	33591.60	PBDB
Megalonyx curvidens	185050.00	(*33*)
Megalonyx leptostomus	279404.72	PBDB + regression
Megalonyx wheatleyi	252445.15	PBDB + regression
Megantereon hesperus	67507.91	(*1*)
Megapeomys bobwilsoni	411.58	(*1*)
Megasminthus tiheni	55.70	(*1*)
Megatylopus cochrani	884486.95	PBDB + regression
Megatylopus matthewi	1383324.20	(*1*)
Megatylopus primaevus	884295.95	PBDB + regression
Meniscomys hippodus	69.41	(*1*)
Meniscomys uhtoffi	70.00	(*4*)
Meniscotherium chamense	17413.77	PBDB + regression
Meniscotherium tapiacitum	1864.20	PBDB + regression
Menoceras arikarense	597195.61	(*1*)
Menoceras barbouri	1251683.50	(*1*)
Menops bakeri	3993312.11	PBDB
Mentoclaenodon acrogenius	37446.92	PBDB + regression
Mephitis mephitis	2055.00	PBDB
Merriamoceros coronatus	15214.44	(*1*)
Merychippus brevidontus	124243.67	(*1*)
Merychippus calamarius	196811.17	(*1*)
Merychippus californicus	86681.87	(*1*)
Merychippus goorisi	222888.24	PBDB + regression
Merychippus gunteri	92041.97	(*1*)
Merychippus insignis	125492.34	(*1*)
Merychippus primus	95798.28	(*1*)
Merychippus relictus	60471.00	(*4*)
Merychippus sejunctus	75357.60	(*1*)
Merychyus arenarum	52892.75	PBDB + regression
Merychyus crabilli	6038.43	(*48*)
Merychyus elegans	45706.69	(*1*)
Merychyus medius	108012.26	(*1*)
Merychyus minimus	29620.91	PBDB + regression
Merychyus relictus	20923.07	PBDB
Merychyus smithi	135340.58	PBDB + regression
Merycochoerus carrikeri	313334.13	(*49*)
Merycochoerus chelydra	289450.77	PBDB
Merycochoerus magnus	331041.82	(*1*)

Continued on next page

Dataset S1 – continued from previous page

Species	Mass (g)	Source
Merycochoerus matthewi	59736.09	PBDB + regression
Merycochoerus proprius	265667.29	(*1*)
Merycochoerus superbus	438400.00	(*4*)
Merycodus prodromus	8738.23	(*50*)
Merycodus sabulonis	10509.13	(*1*)
Merycodus warreni	12597.43	(*51*)
Merycoides harrisonensis	90219.42	(*1*)
Merycoides longiceps	56672.65	(*52*)
Merycoides pariogonus	77000.00	(*4*)
Merycoidodon bullatus	109500.00	(*4*)
Merycoidodon culbertsoni	116748.58	PBDB + regression
Merycoidodon major	62200.00	(*4*)
Mescalerolemur horneri	193.21	(*53*)
Mesocyon brachyops	7942.63	(*1*)
Mesocyon coryphaeus	10198.54	(*1*)
Mesocyon temnodon	7186.79	(*1*)
Mesodma ambigua	115.64	PBDB + regression
Mesodma formosa	32.59	PBDB + regression
Mesodma garfieldensis	37.51	PBDB + regression
Mesodma pygmaea	8.53	PBDB + regression
Mesodma thompsoni	54.13	PBDB + regression
Mesogaulus paniensis	1.92	PBDB
Mesohippus bairdi	39223.29	PBDB + regression
Mesohippus exoletus	47569.37	PBDB + regression
Mesohippus texanus	35643.43	PBDB + regression
Mesohippus westoni	39355.66	PBDB + regression
Mesonyx obtusidens	147850.73	PBDB
Mesoreodon chelonyx	133078.52	(*54*)
Mesoreodon floridensis	104820.01	(*1*)
Mesoreodon minor	159700.00	(*4*)
Mesoscalops montanensis	85.63	(*1*)
Mesoscalops scopelotemos	95.58	(*1*)
Metadjidaumo hendryi	10.38	(*1*)
Metaliomys sevierensis	1.02	PBDB + regression
Metanoiamys agorus	0.91	PBDB + regression
Metanoiamys fantasma	1.10	PBDB + regression
Metanoiamys korthi	0.97	PBDB + regression
Metanoiamys lacus	0.85	PBDB + regression
Metanoiamys marinus	0.78	PBDB + regression
Metarhinus pater	1098772.19	PBDB
Metatomarctus canavus	10938.02	(*1*)
Metechinus amplior	567.90	(*35*)
Miacis deutschi	968.28	PBDB + regression
Miacis exiguus	1775.93	PBDB + regression
Miacis hookwayi	2350.87	(*55*)
Miacis latidens	2236.53	PBDB + regression
Miacis parvivorus	2384.02	PBDB + regression

Continued on next page

Dataset S1 – continued from previous page

Species	Mass (g)	Source
Miacis petilus	1591.36	PBDB + regression
Michenia agatensis	99707.88	(*1*)
Michenia exilis	65512.75	(*1*)
Microcosmodon conus	16.11	PBDB + regression
Microcosmodon rosei	27.99	PBDB + regression
Microeutypomys karenae	0.91	PBDB + regression
Microeutypomys tilliei	1.13	PBDB + regression
Micromomys antelucanus	5.04	PBDB
Microparamys cheradius	1.40	PBDB + regression
Microparamys dubius	1.10	PBDB + regression
Microparamys hunterae	0.98	PBDB
Microparamys minutus	1.17	PBDB + regression
Microparamys nimius	1.22	PBDB + regression
Microparamys sambucus	1.31	PBDB + regression
Microparamys tricus	1.40	PBDB + regression
Microparamys woodi	1.25	PBDB + regression
Micropternodus borealis	41.19	PBDB + regression
Micropternodus montrosensis	103.85	PBDB + regression
Micropternodus morgani	72.24	(*1*)
Microsus cuspidatus	2597.76	PBDB + regression
Microsyops angustidens	352.30	PBDB + regression
Microsyops annectens	1522.82	PBDB + regression
Microsyops cardiorestes	186.75	PBDB + regression
Microsyops elegans	738.98	PBDB + regression
Microsyops knightensis	521.24	PBDB + regression
Microsyops kratos	1455.64	PBDB + regression
Microsyops latidens	472.21	PBDB + regression
Microsyops scottianus	634.92	PBDB + regression
Microtomarctus conferta	8866.19	(*1*)
Mictomys vetus	1.47	PBDB + regression
Mimatuta morgoth	512.92	PBDB + regression
Mimetodon silberlingi	21.68	PBDB + regression
Mimomys mcknighti	110.70	PBDB
Mimomys panacaensis	1.49	PBDB + regression
Mimomys parvus	99.10	PBDB
Mimomys primus	163.60	PBDB
Mimomys taylori	80.90	PBDB
Mimoperadectes labrus	285.50	PBDB + regression
Mimotricentes fremontensis	2674.19	PBDB + regression
Mimotricentes subtrigonus	1984.90	PBDB + regression
Miniochoerus affinis	35835.68	PBDB
Miniochoerus gracilis	15437.78	PBDB
Minippus index	4819.64	PBDB
Mioclaenus turgidus	4412.84	PBDB + regression
Miocyon scotti	41776.02	PBDB + regression
Miocyon vallisrubrae	14244.90	PBDB + regression
Mioheteromys amplissimus	41.26	(*1*)

Continued on next page

Dataset S1 – continued from previous page

Species	Mass (g)	Source
Miohippus anceps	41650.00	(*4*)
Miohippus assiniboiensis	78519.40	PBDB + regression
Miohippus equiceps	41650.00	(*4*)
Miohippus equinanus	35954.16	(*1*)
Miohippus gidleyi	129635.34	PBDB + regression
Miohippus grandis	76252.18	PBDB
Miohippus intermedius	82454.34	(*1*)
Miohippus obliquidens	52575.21	(*1*)
Miolabis fricki	240385.70	(*1*)
Miomustela madisonae	13.46	(*1*)
Mionictis elegans	6652.51	PBDB
Mionictis incertus	9269.73	PBDB
Mionictis letifer	134.29	(*1*)
Mionictis pristinus	32167.60	PBDB + regression
Miosciurus ballovianus	36.60	(*1*)
Miosicista angulus	0.74	PBDB
Miospermophilus lavertyi	106.70	(*1*)
Miospermophilus wyomingensis	83.10	(*1*)
Miotapirus harrisonensis	275463.83	PBDB + regression
Miotylopus gibbi	48050.12	(*1*)
Miotylopus leonardi	43044.94	(*1*)
Miotylopus taylori	73865.41	(*1*)
Miracinonyx inexpectatus	41653.42	PBDB + regression
Miracinonyx studeri	25529.71	PBDB + regression
Mithrandir gillianus	644.09	PBDB + regression
Mixodectes malaris	538.07	PBDB + regression
Mixodectes pungens	1563.78	PBDB + regression
Mojavemys galushai	28.22	(*1*)
Mojavemys lophatus	1.00	PBDB
Mojavemys magnumarcus	56.26	(*1*)
Montanatylopus matthewi	176770.65	PBDB + regression
Mookomys altifluminis	13.07	(*1*)
Mookomys formicarum	0.91	PBDB
Mookomys thrinax	11.94	(*1*)
Moropus elatus	707858.86	(*1*)
Moropus merriami	173767.00	(*4*)
Moropus oregonensis	189094.09	(*1*)
Mustela frenata	146.89	(*11*)
Mustela meltoni	895.71	PBDB + regression
Mustela rexroadensis	9.58	(*1*)
Mylanodon rosei	27.99	PBDB + regression
Mylohyus elmorei	168990.43	PBDB + regression
Myrmecoboides montanensis	45.21	PBDB + regression
Myrmecophaga tridactyla	32544.00	PBDB
Mysops parvus	1.38	PBDB + regression
Mystipterus martini	29.37	(*1*)
Mystipterus pacificus	14.88	(*1*)

Continued on next page

Dataset S1 – continued from previous page

Species	Mass (g)	Source
Mytonolagus petersoni	213.83	PBDB + regression
Mytonolagus wyomingensis	84.09	PBDB + regression
Mytonomeryx scotti	5465.38	PBDB + regression
Mytonomys burkei	2.07	PBDB + regression
Mytonomys mytonensis	1.96	PBDB + regression
Mytonomys robustus	2.07	PBDB + regression
Namatomys lloydi	1.17	PBDB + regression
Nannippus aztecus	106272.86	PBDB + regression
Nannippus beckensis	137564.87	PBDB + regression
Nannippus peninsulatus	68871.66	(*1*)
Nannippus westoni	62317.65	(*1*)
Nannodectes gidleyi	521.24	PBDB + regression
Nannodectes intermedius	133.09	PBDB + regression
Nannodectes simpsoni	402.81	PBDB + regression
Nanodelphys hunti	7.27	PBDB + regression
Nanotragulus loomisi	2724.39	(*1*)
Nanotragulus ordinatus	5541.39	(*1*)
Nanotragulus planiceps	3678.00	(*4*)
Navajovius kohlhaasae	12.82	PBDB + regression
Nebraskomys mcgrewi	46.06	(*1*)
Nebraskomys rexroadensis	1.35	PBDB + regression
Nekrolagus progressus	1510.20	(*1*)
Neohipparion affine	167711.41	(*1*)
Neohipparion eurystyle	133252.35	(*1*)
Neohipparion leptode	233281.23	(*1*)
Neohipparion trampasense	120571.71	(*1*)
Neoliotomus conventus	1894.05	PBDB + regression
Neoliotomus ultimus	2252.70	PBDB + regression
Neoplagiaulax donaldorum	52.00	(*7*)
Neoplagiaulax grangeri	93.00	(*7*)
Neoplagiaulax hazeni	95.39	PBDB + regression
Neoplagiaulax hunteri	42.74	PBDB + regression
Neoplagiaulax macrotomeus	14.42	PBDB + regression
Neoplagiaulax mckennai	60.27	PBDB + regression
Neotoma cinerea	299.23	(*11*)
Neotoma fossilis	1.63	PBDB + regression
Neotoma leucopetrica	1.79	(*56*)
Neotoma quadriplicata	1.82	PBDB + regression
Neotoma sawrockensis	99.48	(*1*)
Neotoma taylori	1.66	PBDB + regression
Neotoma vaughani	1.66	PBDB + regression
Nerterogeomys anzensis	80.55	PBDB
Nerterogeomys garbanii	157.02	PBDB
Nerterogeomys minor	1.29	PBDB + regression
Nerterogeomys persimilis	1.36	(*56*)
Nexuotapirus marslandensis	144350.55	(*1*)
Nexuotapirus robustus	302549.45	(*1*)

Continued on next page

Dataset S1 – continued from previous page

Species	Mass (g)	Source
Niglarodon koerneri	68.03	(*1*)
Nimravides galiani	159532.03	(*1*)
Nimravides thinobates	9582364.97	PBDB
Nimravus brachyops	3789.54	(*1*)
Nimravus sectator	112444.51	PBDB + regression
Niptomomys doreenae	17.88	PBDB + regression
Niptomomys thelmae	19.74	PBDB + regression
Nonomys gutzleri	1.10	PBDB + regression
Nonomys simplicidens	1.02	PBDB + regression
Notharctus pugnax	3034.76	PBDB + regression
Notharctus robinsoni	3318.67	PBDB + regression
Notharctus robustior	6900.00	(*22*)
Notharctus tenebrosus	4325.36	PBDB + regression
Notharctus venticolus	2691.73	PBDB + regression
Nothokemas floridanus	100709.96	(*1*)
Nothokemas waldropi	22925.38	(*1*)
Nothotylopus camptognathus	334368.85	(*1*)
Nothrotheriops shastensis	613762.01	(*57*)
Nothrotheriops texanus	124768.59	PBDB + regression
Notiosorex jacksoni	11.14	(*58*)
Notiosorex repenningi	17.08	(*59*)
Notiotitanops mississippiensis	4455686.16	PBDB + regression
Notolagus lepusculus	372.41	(*1*)
Nototamias hulberti	17.12	(*1*)
Nototamias quadratus	35.87	(*1*)
Nyctitherium serotinum	12.08	PBDB + regression
Nyctitherium velox	24.97	PBDB + regression
Ochotona spanglei	188.67	(*1*)
Odocoileus virginianus	52607.00	PBDB
Ogmodontomys poaphagus	131.63	(*1*)
Ogmodontomys sawrockensis	140.40	PBDB
Oklahomalagus whisenhunti	387.61	(*1*)
Oligobunis floridanus	24237.19	PBDB + regression
Oligoryctes cameronensis	4.73	PBDB + regression
Oligoscalops galbreathi	15.04	PBDB + regression
Oligospermophilus douglassi	1.56	PBDB + regression
Omomys carteri	171.31	PBDB + regression
Omomys lloydi	66.71	PBDB + regression
Onychomys hollisteri	1.10	PBDB + regression
Onychomys martini	18.36	(*1*)
Onychomys pedroensis	36.23	(*1*)
Oregonomys magnus	1.10	PBDB + regression
Oregonomys pebblespringsensis	26.58	(*1*)
Oregonomys sargenti	26.05	(*1*)
Oreodontoides oregonensis	25336.47	(*1*)
Oreolagus colteri	48.28	PBDB + regression
Oreolagus nebrascensis	336.97	(*1*)

Continued on next page

Dataset S1 – continued from previous page

Species	Mass (g)	Source
Oreolagus nevadensis	78.00	(*4*)
Oreolagus wallacei	354.25	(*1*)
Oreotalpa florissantensis	10.87	PBDB + regression
Orohippus pumilus	11144.64	PBDB + regression
Orohippus sylvaticus	10210.29	PBDB + regression
Oromeryx plicatus	8545.03	PBDB + regression
Oropyctis pediasius	1.63	PBDB + regression
Osbornoceros osborni	17326.63	(*1*)
Osbornodon brachypus	12282.74	(*60*)
Osbornodon fricki	25848.30	(*1*)
Osbornodon iamonensis	13904.95	(*1*)
Osbornodon renjiei	9337.04	PBDB + regression
Osbornodon scitulus	11849.01	(*1*)
Osbornodon sesnoni	8349.86	(*1*)
Otarocyon cooki	1826.21	(*1*)
Otarocyon macdonaldi	1270.84	PBDB + regression
Ottoceros peacevalleyensis	13493.99	(*1*)
Ourayia hopsoni	590.00	PBDB + regression
Ourayia uintensis	758.66	PBDB + regression
Oxetocyon cuspidatus	2440.60	(*1*)
Oxyacodon agapetillus	352.30	PBDB + regression
Oxyacodon apiculatus	1116.82	PBDB + regression
Oxyacodon ferronensis	616.78	PBDB + regression
Oxyacodon priscilla	808.90	PBDB + regression
Oxyaena forcipata	49289.23	PBDB + regression
Oxyaena gulo	42202.38	PBDB + regression
Oxyaena intermedia	44676.22	PBDB + regression
Oxyclaenus cuspidatus	760.59	PBDB + regression
Oxyclaenus pugnax	1812.53	PBDB + regression
Oxyclaenus simplex	566.68	PBDB + regression
Oxydactylus longipes	112420.32	(*1*)
Oxydactylus lulli	140198.81	PBDB
Oxyprimus erikseni	133.09	PBDB + regression
Pachyaena gigantea	71758.33	PBDB + regression
Pachyaena gracilis	38119.28	PBDB + regression
Pachyaena ossifraga	460896.74	PBDB
Pachyarmatherium leiseyi	15420.00	(*33*)
Paciculus montanus	1.44	PBDB + regression
Paciculus nebraskensis	80.64	(*1*)
Paciculus woodi	1.25	(*61*)
Paenemarmota barbouri	10301.04	(*1*)
Paenemarmota mexicana	2.23	PBDB + regression
Paenemarmota nevadensis	7644.00	(*4*)
Paenemarmota sawrockensis	5943.18	(*1*)
Palaechthon alticuspis	51.17	PBDB + regression
Palaechthon woodi	27.99	PBDB + regression
Palaeictops bicuspis	143.19	(*9*)

Continued on next page

Dataset S1 – continued from previous page

Species	Mass (g)	Source
Palaeictops bridgeri	139.74	PBDB + regression
Palaeictops multicuspis	149.35	PBDB + regression
Palaeogale dorothiae	607.89	(*1*)
Palaeogale minuta	400.00	NOW
Palaeogale sectoria	716.63	PBDB
Palaeolagus burkei	307.97	(*1*)
Palaeolagus hemirhizis	128.62	PBDB + regression
Palaeolagus hypsodus	678.58	(*1*)
Palaeolagus philoi	1211.97	(*1*)
Palaeolagus primus	119.90	PBDB + regression
Palaeolagus temnodon	171.31	PBDB + regression
Palaeonictis occidentalis	36870.62	PBDB + regression
Palaeonictis peloria	60916.03	PBDB + regression
Palaeoryctes cruoris	62.68	PBDB + regression
Palaeoryctes puercensis	24.97	PBDB + regression
Palaeosyops laevidens	1052429.44	PBDB + regression
Palaeosyops paludosus	1388030.44	PBDB + regression
Palaeosyops robustus	1619966.85	PBDB + regression
Palenochtha minor	9.87	PBDB + regression
Palenochtha weissae	9.87	PBDB + regression
Paleotomus junior	171.31	PBDB + regression
Paleotomus radagasti	1351.50	PBDB
Panthera onca	100000.00	PBDB
Pantolambda bathmodon	63252.15	PBDB
Pantolambda cavirictus	35087.78	PBDB + regression
Pantolambda intermedius	19134.73	PBDB + regression
Parablastomeryx galushi	19345.66	PBDB + regression
Paracosoryx furlongi	13493.99	(*1*)
Paracosoryx wilsoni	15473.78	PBDB
Paracryptotis gidleyi	28.22	(*1*)
Paracryptotis rex	42.10	(*1*)
Paracynarctus kelloggi	8349.86	(*1*)
Paracynarctus sinclairi	8022.46	(*1*)
Paradaphoenus cuspigerus	4023.87	(*1*)
Paradaphoenus minimus	3314.52	PBDB + regression
Paradaphoenus tooheyi	3498.19	(*1*)
Paradjidaumo alberti	1.02	PBDB + regression
Paradjidaumo hypsodus	1.22	PBDB + regression
Paradjidaumo reynoldsi	1.10	PBDB + regression
Paradjidaumo spokanensis	1.38	PBDB + regression
Paradjidaumo trilophus	1.25	PBDB + regression
Paradjidaumo validus	1.41	PBDB + regression
Paradomnina relictus	23.81	(*1*)
Paraenhydrocyon josephi	7942.63	(*1*)
Paraenhydrocyon wallovianus	14185.85	(*1*)
Parahippus leonensis	94845.07	(*1*)
Parahippus pawniensis	99707.88	(*1*)

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Dataset S1 – continued from previous page

Species	Mass (g)	Source
Parahippus tyleri	105994.41	PBDB + regression
Parahippus wyomingensis	98400.00	(*30*)
Parahyus vagus	185903.42	PBDB + regression
Paralabis cedrensis	75771.66	PBDB + regression
Parallomys americanus	162.39	(*1*)
Paramiolabis taylori	131926.47	(*1*)
Paramylodon harlani	1185306.75	PBDB + regression
Paramys adamus	1.37	PBDB + regression
Paramys atavus	1.35	PBDB + regression
Paramys compressidens	2.01	PBDB + regression
Paramys copei	1.84	PBDB + regression
Paramys delicatior	1.88	PBDB + regression
Paramys delicatus	2.01	PBDB + regression
Paramys excavatus	1.72	PBDB + regression
Paramys taurus	1.75	PBDB + regression
Paranamatomys storeri	0.71	PBDB
Parapliohippus carrizoensis	80821.64	(*1*)
Parapliosaccomys oregonensis	24.29	(*1*)
Parapliosaccomys transversus	1.34	PBDB
Parapotos tedfordi	3533.34	(*1*)
Pararyctes pattersoni	17.36	PBDB + regression
Paratomarctus euthos	14472.42	(*1*)
Paratomarctus temerarius	11498.82	(*1*)
Paratylopus labiatus	47357.63	PBDB + regression
Paratylopus primaevus	29814.41	PBDB + regression
Parectypodus clemensi	23.70	PBDB + regression
Parectypodus corystes	40.09	PBDB + regression
Parectypodus laytoni	11.30	PBDB + regression
Parectypodus lunatus	21.68	PBDB + regression
Parectypodus simpsoni	37.51	PBDB + regression
Parectypodus sinclairi	19.00	(*7*)
Parectypodus sylviae	12.82	PBDB + regression
Parectypodus trovessartianus	87.78	PBDB + regression
Pareumys boskeyi	1.50	PBDB + regression
Pareumys grangeri	1.40	PBDB + regression
Pareumys guensburgi	1.60	PBDB + regression
Pareumys milleri	1.47	PBDB + regression
Parictis parvus	1594.41	PBDB + regression
Parictis personi	2218.53	PBDB + regression
Paromomys depressidens	57.16	PBDB + regression
Paromomys maturus	197.38	PBDB + regression
Paronychomys alticuspis	17.12	(*1*)
Paronychomys lemredfieldi	20.09	(*1*)
Paronychomys tuttlei	38.86	(*1*)
Paroreodon parvus	51150.00	(*4*)
Parvericius montanus	41.26	(*1*)
Parvericius voorhiesi	28.79	(*1*)

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Dataset S1 – continued from previous page

Species	Mass (g)	Source
Patriofelis ferox	22418.00	(*4*)
Patriofelis ulta	48311.29	PBDB + regression
Patriolestes novaceki	246.37	PBDB + regression
Pauromys exallos	1.06	PBDB + regression
Pauromys lillegraveni	0.91	PBDB + regression
Pauromys simplex	0.97	PBDB + regression
Pauromys texensis	1.06	PBDB + regression
Pediomeryx hemphillensis	167711.41	(*1*)
Pelycodus jarrovii	3222.75	PBDB + regression
Pelycomys brulanus	1.68	PBDB + regression
Pelycomys rugosus	1.76	PBDB + regression
Penetrigonias hudsoni	601751.47	PBDB
Pentacemylus leotensis	5601.22	PBDB + regression
Pentacemylus progressus	7131.24	PBDB + regression
Pentacodon inversus	604.36	PBDB + regression
Pentacodon occultus	1560.69	PBDB + regression
Peraceras hessei	936589.16	(*1*)
Peraceras profectum	2326789.55	(*1*)
Peraceras superciliosum	1639660.88	(*1*)
Peradectes californicus	6.11	PBDB + regression
Peradectes chesteri	5.04	PBDB + regression
Peradectes elegans	11.30	PBDB + regression
Peradectes minor	11.23	(*62*)
Peradectes protinnominatus	12.82	PBDB + regression
Peratherium comstocki	87.78	PBDB + regression
Peratherium marsupium	91.55	PBDB + regression
Perchoerus probus	24602.41	PBDB + regression
Peridiomys halis	63.43	(*1*)
Peridiomys oregonensis	1.27	PBDB + regression
Peridiomys rusticus	69.41	(*1*)
Periptychus carinidens	30641.27	PBDB + regression
Periptychus coarctatus	22723.44	PBDB + regression
Perognathus ancenensis	11.47	(*1*)
Perognathus coquorum	1.27	PBDB + regression
Perognathus dunklei	7.92	(*1*)
Perognathus furlongi	9.68	(*1*)
Perognathus gidleyi	11.82	(*1*)
Perognathus maldei	0.85	PBDB + regression
Perognathus mclaughlini	8.33	(*1*)
Perognathus minutus	5.93	(*1*)
Perognathus pearlettensis	6.89	(*1*)
Perognathus rexroadensis	1.06	PBDB + regression
Perognathus trojectioansrum	3.63	(*1*)
Peromyscus antiquus	26.84	(*1*)
Peromyscus brachygnathus	0.85	PBDB + regression
Peromyscus complexus	1.17	PBDB
Peromyscus cragini	15.49	(*1*)

Continued on next page

Dataset S1 – continued from previous page

Species	Mass (g)	Source
Peromyscus dentalis	0.91	PBDB + regression
Peromyscus hagermanensis	19.89	(*1*)
Peromyscus minimus	0.43	PBDB + regression
Peromyscus nosher	1.02	PBDB + regression
Peromyscus polionotus	14.30	PBDB
Peromyscus sarmocophinus	1.06	PBDB + regression
Petauristodon jamesi	307.97	(*1*)
Petauristodon mathewsi	214.86	(*1*)
Petauristodon pattersoni	336.97	(*1*)
Pewelagus dawsonae	447.84	(*63*)
Pewelagus mexicanus	186.75	PBDB + regression
Phelosaccomys annae	26.31	(*1*)
Phelosaccomys hibbardi	46.53	(*1*)
Phelosaccomys neomexicanus	19.89	(*1*)
Phelosaccomys shotwelli	20.49	(*1*)
Phenacocoelus typus	52052.08	(*1*)
Phenacodaptes sabulosus	109.55	PBDB + regression
Phenacodus bisonensis	17047.49	PBDB + regression
Phenacodus grangeri	28510.66	PBDB + regression
Phenacodus intermedius	45430.80	PBDB + regression
Phenacodus magnus	72471.82	PBDB + regression
Phenacodus matthewi	5446.34	(*64*)
Phenacodus trilobatus	64494.29	PBDB + regression
Phenacodus vortmani	10636.06	PBDB + regression
Phenacolemur fortior	186.75	(*65*)
Phenacolemur mcgrewi	63.45	PBDB + regression
Phenacolemur praecox	151.65	PBDB + regression
Phenacolemur simonsi	40.09	PBDB + regression
Phenacomys gryci	228.00	(*4*)
Philotrox condoni	11968.10	(*1*)
Phlaocyon achoros	2951.30	(*1*)
Phlaocyon annectens	3498.19	(*1*)
Phlaocyon latidens	2779.43	(*1*)
Phlaocyon leucosteus	3827.63	(*1*)
Phlaocyon minor	3498.19	(*1*)
Phlaocyon taylori	1939.14	(*1*)
Phlaocyon yatkolai	9604.62	(*1*)
Phoberocyon johnhenryi	179871.86	(*1*)
Picrodus calgariensis	12.82	PBDB + regression
Picrodus canpacius	48.28	PBDB + regression
Picrodus silberlingi	48.28	PBDB + regression
Pipestoneomys bisulcatus	1.35	PBDB + regression
Plagioctenodon krausae	4.73	PBDB + regression
Plagioctenodon rosei	10.87	PBDB + regression
Plagiomene accola	359.33	PBDB + regression
Plagiomene multicuspis	850.13	PBDB + regression
Planisorex dixonensis	12.08	PBDB + regression

Continued on next page

Dataset S1 – continued from previous page

Species	Mass (g)	Source
Platygonus bicalcaratus	114741.07	PBDB + regression
Platygonus oregonensis	40134.84	(*1*)
Platygonus pearcei	55826.28	(*1*)
Platygonus vetus	65463.62	(*57*)
Plesiadapis anceps	291.90	PBDB + regression
Plesiadapis churchilli	871.09	PBDB + regression
Plesiadapis cookei	4434.83	PBDB + regression
Plesiadapis dubius	417.80	PBDB + regression
Plesiadapis fodinatus	709.89	PBDB + regression
Plesiadapis gingerichi	2726.96	PBDB + regression
Plesiadapis praecursor	192.03	PBDB + regression
Plesiadapis rex	690.80	PBDB + regression
Plesiocolopirus hancocki	42441.52	PBDB + regression
Plesiogulo lindsayi	4628.55	(*1*)
Plesiogulo marshalli	3133.79	(*1*)
Plesiolestes nacimienti	233.00	(*22*)
Plesiolestes problematicus	115.64	PBDB + regression
Plesiolestes wilsoni	366.42	PBDB + regression
Plesiosminthus clivosus	9.30	(*1*)
Plesiosorex coloradensis	192.48	(*1*)
Plesiosorex donroosai	685.40	(*1*)
Pleurolicus dakotensis	60.95	(*1*)
Pleurolicus exiguus	1.17	PBDB + regression
Pleurolicus sellardsi	1.38	(*66*)
Pleurolicus sulcifrons	83.93	(*1*)
Pliocyon medius	172818.99	(*1*)
Pliocyon robustus	176310.16	(*1*)
Pliogale furlongi	456.36	(*65*)
Pliogale manka	2986.47	PBDB + regression
Pliogeomys parvus	10.28	(*1*)
Pliogeomys russelli	15.18	(*1*)
Pliohippus fossulatus	257815.63	(*1*)
Pliohippus pernix	198789.15	(*1*)
Pliohippus tehonensis	164875.58	PBDB + regression
Pliometanastes galushai	8636.25	PBDB
Pliometanastes protistus	88139.12	PBDB + regression
Plionarctos edensis	56954.05	(*1*)
Plionarctos harroldorum	47351.79	PBDB + regression
Plionictis ogygia	36.97	(*1*)
Pliophenacomys dixonensis	1.37	PBDB + regression
Pliophenacomys finneyi	1.43	PBDB + regression
Pliophenacomys meadensis	1.38	PBDB + regression
Pliophenacomys osborni	86.49	(*1*)
Pliophenacomys primaevus	61.56	(*1*)
Pliosaccomys dubius	27.66	(*1*)
Pliosaccomys higginsensis	18.17	(*1*)
Pliotaxidea garberi	4440.12	PBDB + regression

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Dataset S1 – continued from previous page

Species	Mass (g)	Source
Pliotaxidea nevadensis	130.32	(*1*)
Pliotomodon primitivus	107.77	(*1*)
Pliozapus solus	18.73	(*1*)
Plithocyon ursinus	189094.09	(*1*)
Poabromylus golzi	11885.48	PBDB + regression
Poabromylus kayi	23487.74	PBDB + regression
Poebrotherium eximium	50423.02	PBDB + regression
Poebrotherium wilsoni	60615.67	PBDB + regression
Pogonodon eileenae	138453.42	(*67*)
Pratifelis martini	215345.72	(*1*)
Pratilepus kansasensis	972.63	(*1*)
Premnoides douglassi	40.09	PBDB + regression
Presbymys lophatus	1.45	PBDB + regression
Presbytherium rhodorugatus	2901.91	PBDB + regression
Princetonia yalensis	1703.86	PBDB + regression
Probassariscus matthewi	2396.46	PBDB + regression
Probathyopsis harrisorum	96406.85	PBDB + regression
Probathyopsis praecursor	119830.36	PBDB + regression
Problastomeryx primus	14913.17	(*1*)
Procamelus grandis	400312.19	(*1*)
Procamelus occidentalis	189094.09	(*1*)
Procerberus formicarum	67.38	PBDB + regression
Prochetodon cavus	213.83	PBDB + regression
Prochetodon foxi	202.80	PBDB + regression
Prochetodon speirsae	417.88	PBDB
Prochetodon taxus	480.23	PBDB + regression
Procranioceras skinneri	169396.94	(*1*)
Procynodictis progressus	3665.64	PBDB + regression
Procyon lotor	5814.00	PBDB
Procyon rexroadensis	9632.47	PBDB + regression
Prodiacodon concordiarcensis	43.19	PBDB + regression
Prodiacodon crustulum	125.81	(*68*)
Prodiacodon furor	66.91	(*36*)
Prodiacodon puercensis	225.49	(*69*)
Prodiacodon tauricinerei	82.27	PBDB + regression
Prodipodomys centralis	1.12	(*70*)
Prodipodomys idahoensis	22.42	(*1*)
Prodipodomys kansensis	12.81	(*1*)
Prodipodomys timoteoensis	1.10	PBDB + regression
Prohesperocyon wilsoni	3787.93	PBDB + regression
Proheteromys fedti	1.06	PBDB + regression
Proheteromys floridanus	5.37	(*1*)
Proheteromys gremmelsi	1.20	(*70*)
Proheteromys ironcloudi	10.59	(*1*)
Proheteromys maximus	87.36	(*1*)
Proheteromys nebraskensis	1.12	PBDB
Proheteromys sulculus	1.02	PBDB + regression

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Dataset S1 – continued from previous page

Species	Mass (g)	Source
Proheteromys toledoensis	59.15	(*1*)
Prolapsus junctionis	1.45	PBDB + regression
Prolapsus sibilatoris	1.65	PBDB + regression
Prolimnocyon antiquus	1442.37	PBDB + regression
Prolimnocyon atavus	2467.80	PBDB + regression
Prolimnocyon haematus	1058.55	PBDB + regression
Promartes darbyi	3029.14	(*71*)
Promartes gemmarosae	1945.16	(*71*)
Promartes lepidus	6776.78	(*72*)
Promioclaenus acolytus	410.27	PBDB + regression
Promioclaenus pipiringosi	748.79	PBDB + regression
Promioclaenus thnetus	260.57	(*73*)
Promylagaulus riggsi	85.63	(*1*)
Pronodens silberlingi	22247.84	(*1*)
Pronothodectes gaoi	254.50	PBDB + regression
Pronothodectes jepi	242.55	PBDB + regression
Pronothodectes matthewi	142.24	PBDB + regression
Pronotolagus apachensis	445.86	(*1*)
Pronotolagus nevadensis	60.34	(*1*)
Pronotolagus whitei	1436.55	(*1*)
Proscalops miocaenus	28.30	PBDB + regression
Proscalops secundus	72.97	(*1*)
Proscalops tertius	96.54	(*1*)
Prosciurus magnus	1.54	PBDB + regression
Prosciurus parvus	1.44	PBDB + regression
Prosciurus relictus	1.43	PBDB + regression
Prosigmodon chihuahuensis	1.45	PBDB + regression
Prosigmodon ferrusquiai	1.36	PBDB
Prosigmodon holocuspis	113.30	(*1*)
Prosigmodon oroscoi	1.20	PBDB + regression
Prosomys mimus	1.25	PBDB + regression
Prosthennops niobrarensis	43044.94	(*1*)
Prosthennops serus	53637.30	(*1*)
Prosthennops xiphodonticus	23860.99	(*1*)
Prosynthetoceras francisi	134591.56	(*1*)
Prosynthetoceras orthrionanus	40134.84	(*1*)
Protadjidaumo pauli	1.06	PBDB + regression
Protadjidaumo typus	0.91	PBDB + regression
Protapirus obliquidens	168000.80	(*74*)
Protapirus simplex	189283.62	PBDB + regression
Protepicyon raki	23623.56	(*1*)
Proterix bicuspis	194.51	(*75*)
Proterix loomisi	523.22	PBDB + regression
Proterixoides davisi	242.45	PBDB + regression
Prothryptacodon albertensis	464.26	PBDB + regression
Prothryptacodon furens	1351.03	PBDB + regression
Prothryptacodon hilli	1954.40	PBDB + regression

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Dataset S1 – continued from previous page

Species	Mass (g)	Source
Protictis haydenianus	2074.37	PBDB + regression
Protictis microlestes	722.34	PBDB
Protictis minor	1270.84	PBDB + regression
Protictis paralus	354.83	PBDB + regression
Protictis paulus	298.35	PBDB
Protictis simpsoni	3202.65	PBDB + regression
Protitanops curryi	142477.00	(*4*)
Protitanotherium superbum	2858807.95	PBDB + regression
Protoceras celer	105068.04	PBDB + regression
Protoceras skinneri	81023.96	PBDB
Protohippus gidleyi	164390.50	(*1*)
Protohippus perditus	135944.23	(*1*)
Protohippus supremus	167711.41	(*1*)
Protohippus vetus	123329.89	PBDB
Protolabis coartatus	110194.25	(*1*)
Protolabis heterodontus	219695.99	(*1*)
Protomarctus optatus	11271.13	(*1*)
Protoreodon pacificus	34181.30	PBDB + regression
Protoreodon parvus	33051.65	PBDB + regression
Protoreodon pearcei	38169.88	PBDB + regression
Protoreodon petersoni	18828.04	PBDB + regression
Protoreodon pumilus	51870.94	PBDB + regression
Protoreodon walshi	59926.66	PBDB + regression
Protorohippus venticolus	14768.64	PBDB + regression
Protosciurus mengi	1.79	PBDB + regression
Protosciurus tecuyensis	478.19	(*1*)
Protoselene griphus	1619.16	PBDB + regression
Protoselene opisthacus	1703.86	PBDB + regression
Protospermophilus kelloggi	202.35	(*1*)
Protospermophilus malheurensis	103.54	(*1*)
Protospermophilus oregonensis	450.34	(*1*)
Protospermophilus quatalensis	273.14	(*1*)
Protospermophilus vortmani	230.44	(*1*)
Prototomus deimos	504.65	PBDB + regression
Prototomus martis	3573.98	PBDB + regression
Prototomus phobos	2691.73	PBDB + regression
Prototomus robustus	2434.13	PBDB + regression
Prototomus secundarius	1522.82	PBDB + regression
Protungulatum donnae	546.57	PBDB + regression
Protylopus annectens	14816.10	PBDB + regression
Protylopus pearsonensis	38366.65	PBDB + regression
Protylopus petersoni	18468.57	PBDB + regression
Protylopus robustus	17655.81	PBDB + regression
Protylopus stocki	15437.78	PBDB + regression
Proviverroides piercei	7343.84	PBDB + regression
Psalidocyon marianae	8777.97	(*1*)
Pseudaelurus aeluroides	31571.18	(*1*)

Continued on next page

Dataset S1 – continued from previous page

Species	Mass (g)	Source
Pseudaelurus intrepidus	40945.61	(*1*)
Pseudaelurus marshi	33189.87	(*1*)
Pseudaelurus stouti	5767.53	(*1*)
Pseudhipparion curtivallum	58104.59	(*1*)
Pseudhipparion gratum	108012.26	(*1*)
Pseudhipparion hessei	75357.60	(*1*)
Pseudhipparion retrusum	86681.87	(*1*)
Pseudhipparion simpsoni	48050.12	(*1*)
Pseudhipparion skinneri	54176.36	(*1*)
Pseudoblastomeryx advena	10097.06	(*1*)
Pseudoceras skinneri	10938.02	(*1*)
Pseudocylindrodon lateriviae	1.53	PBDB + regression
Pseudocylindrodon medius	1.33	PBDB + regression
Pseudocylindrodon neglectus	1.50	PBDB + regression
Pseudocylindrodon pintoensis	1.66	MIOMAP
Pseudodiplacodon progressum	1263102.01	PBDB
Pseudolabis dakotensis	59874.14	(*1*)
Pseudoparablastomeryx francescita	4900.87	PBDB
Pseudoparablastomeryx scotti	5884.05	(*1*)
Pseudoprotoceras longinaris	35005.16	PBDB + regression
Pseudoprotoceras minor	19973.07	PBDB + regression
Pseudotheridomys cuyamensis	12.43	(*1*)
Pseudotheridomys hesperus	14.15	(*1*)
Pseudotheridomys pagei	8.17	(*1*)
Pseudotomus californicus	2.10	PBDB + regression
Pseudotomus eugenei	2.26	PBDB + regression
Pseudotomus hians	2299.39	PBDB
Pseudotomus horribilis	2.08	(*76*)
Pseudotomus johanniculi	2.24	PBDB + regression
Pseudotomus littoralis	2.06	PBDB + regression
Pseudotomus petersoni	2.12	(*76*)
Pseudotomus robustus	2.12	PBDB + regression
Pseudotrimylus mawbyi	142.92	PBDB + regression
Ptilodus fractus	105.00	(*7*)
Ptilodus gnomus	87.78	PBDB + regression
Ptilodus kummae	208.28	PBDB + regression
Ptilodus mediaevus	311.46	PBDB + regression
Ptilodus montanus	373.57	PBDB + regression
Ptilodus wyomingensis	147.00	(*7*)
Puercolestes simpsoni	138.73	PBDB + regression
Puma concolor	48009.00	PBDB
Puma lacustris	17724.85	PBDB + regression
Pyrocyon dioctetus	1834.56	PBDB + regression
Quadratomus grandis	2.00	PBDB + regression
Quadratomus grossus	2.13	PBDB + regression
Quadrodens wilsoni	46.06	(*1*)
Rakomeryx sinclairi	111301.72	(*1*)

Continued on next page

Dataset S1 – continued from previous page

Species	Mass (g)	Source
Rapamys fricki	1.94	PBDB + regression
Raphictis gausion	261.58	PBDB + regression
Reithrodontomys galushai	0.85	PBDB + regression
Reithrodontomys rexroadensis	0.69	PBDB + regression
Reithrodontomys wetmorei	9.03	(*1*)
Reithroparamys debequensis	1.66	PBDB + regression
Reithroparamys delicatissimus	1.81	PBDB + regression
Reithroparamys huerfanensis	1.76	PBDB + regression
Reithroparamys sciuroides	1.82	(*77*)
Repomys arizonensis	1.38	PBDB + regression
Repomys gustelyi	81.45	(*1*)
Repomys maxumi	122.73	(*1*)
Repomys panacaensis	38.47	(*1*)
Rhizocyon oregonensis	3361.02	(*1*)
Rhynchotherium falconeri	54956347.86	PBDB + regression
Russellagus vonhofi	214.86	(*1*)
Sanctimus falkenbachi	151.41	(*1*)
Sanctimus stouti	120.30	(*1*)
Sanctimus stuartae	100.48	(*1*)
Satherium piscinarium	934.49	(*1*)
Saxonella naylori	45.48	PBDB + regression
Scalopoides isodens	32.14	(*1*)
Scalopoides ripafodiator	27.39	(*1*)
Scalopus aquaticus	39.60	PBDB
Scapanoscapter simplicidens	58.56	(*1*)
Scapanus hagermanensis	7.00	(*4*)
Scapanus latimanus	55.00	PBDB
Scapanus proceridens	65.37	(*1*)
Scapanus shultzi	97.00	(*4*)
Scapanus townsendii	141.58	(*11*)
Scaphohippus sumani	103960.05	PBDB
Scenopagus curtidens	26.62	PBDB + regression
Scenopagus edenensis	72.22	PBDB + regression
Scenopagus priscus	17.36	PBDB + regression
Schaubeumys galbreathi	1.09	(*78*)
Schaubeumys grangeri	1.10	PBDB + regression
Schaubeumys sabrae	1.05	(*39*)
Schizodontomys amnicolus	111.05	(*1*)
Schizodontomys greeni	94.00	(*4*)
Schizodontomys harkseni	105.64	(*1*)
Sciuravus bridgeri	1.31	PBDB + regression
Sciuravus nitidus	1.63	PBDB + regression
Sciuravus popi	1.76	PBDB + regression
Sciuravus powayensis	1.50	PBDB + regression
Sciuravus wilsoni	1.49	PBDB + regression
Sciurion campestre	1.20	PBDB + regression
Sciurus carolinensis	518.00	PBDB

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Dataset S1 – continued from previous page

Species	Mass (g)	Source
Sciurus olsoni	1.14	PBDB
Scottimus exiguus	1.44	(*31*)
Scottimus longiquus	111.05	(*1*)
Scottimus lophatus	1.59	PBDB
Scottimus viduus	1.33	PBDB + regression
Selenaletes scopaeus	8232.01	PBDB + regression
Serbelodon barbourensis	11462314.59	(*45*)
Sespedectes singularis	28.30	PBDB + regression
Sespedectes stocki	23.37	PBDB + regression
Sespemys thurstoni	290.03	(*1*)
Sespia californica	3604.72	(*1*)
Sespia nitida	2394.82	(*79*)
Shoshonius bowni	142.24	PBDB + regression
Shoshonius cooperi	57.16	PBDB + regression
Sifrhippus aemulor	6498.52	(*80*)
Sifrhippus grangeri	11578.47	PBDB + regression
Sifrhippus sandrae	10631.54	PBDB + regression
Sigmodon curtisi	1.51	PBDB + regression
Sigmodon hudspethensis	1.44	PBDB + regression
Sigmodon minor	52.98	(*1*)
Simidectes magnus	3787.93	PBDB + regression
Simidectes medius	2882.11	PBDB + regression
Simidectes merriami	6833.74	PBDB + regression
Similisciurus maxwelli	259.82	(*1*)
Simimeryx hudsoni	4171.22	PBDB + regression
Simimeryx minutus	1736.45	PBDB + regression
Simimys landeri	1.29	PBDB + regression
Simimys simplex	0.97	PBDB + regression
Simocyon primigenius	70000.00	NOW
Simojovelhyus pocitosense	19763.18	(*38*)
Simpsonictis pegus	245.14	PBDB + regression
Simpsonictis tenuis	126.87	PBDB + regression
Simpsonlemur citatus	171.00	(*22*)
Simpsonlemur jepseni	121.00	(*22*)
Simpsonodus chacensis	1262.40	PBDB + regression
Sinclairella dakotensis	139.74	PBDB + regression
Sinopa major	7566.66	PBDB + regression
Sinopa rapax	3299.38	PBDB + regression
Smilodectes gracilis	1035.64	PBDB + regression
Smilodectes mcgrewi	1212.97	PBDB + regression
Smilodectes sororis	935.37	PBDB + regression
Smilodon gracilis	57206.56	PBDB + regression
Sminthosinis bowleri	100.48	(*1*)
Sorex cinereus	3.80	PBDB
Sorex edwardsi	6.84	PBDB
Sorex hagermanensis	7.56	PBDB + regression
Sorex meltoni	3.46	(*1*)

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Dataset S1 – continued from previous page

Species	Mass (g)	Source
Sorex palustris	13.46	(*11*)
Sorex powersi	7.77	(*1*)
Sorex rexroadensis	8.00	(*4*)
Sorex yatkolai	4.91	PBDB
Spermophilus argonautus	131.63	(*1*)
Spermophilus bensoni	184.93	(*1*)
Spermophilus boothi	1.83	(*45*)
Spermophilus cragini	578.25	(*1*)
Spermophilus dotti	270.43	(*1*)
Spermophilus fricki	1.69	(*9*)
Spermophilus gidleyi	700.00	(*4*)
Spermophilus howelli	139.77	(*1*)
Spermophilus jerae	87.36	(*1*)
Spermophilus matachicensis	1.69	PBDB + regression
Spermophilus matthewi	1.79	(*81*)
Spermophilus meadensis	100.48	(*1*)
Spermophilus rexroadensis	1.77	PBDB + regression
Spermophilus russelli	166.00	(*4*)
Spermophilus shotwelli	204.00	(*4*)
Spermophilus tephrus	89.12	(*1*)
Spermophilus wellingtonensis	295.89	(*1*)
Spermophilus wilsoni	247.15	(*1*)
Sphacorhysis burntforkensis	40.09	PBDB + regression
Sphenophalos nevadanus	8789.20	PBDB
Spilogale microdens	1270.84	(*60*)
Spilogale putorius	341.19	(*11*)
Spilogale rexroadi	895.71	PBDB + regression
Stegomastodon mirificus	35283150.07	PBDB + regression
Steinius annectens	397.75	(*82*)
Steinius vespertinus	119.90	PBDB + regression
Stelocyon arctylos	2132.95	PBDB + regression
Stenoechinus tantalus	48.42	(*1*)
Stenomylus gracilis	44801.64	(*1*)
Stenomylus hitchcocki	38948.67	(*1*)
Stenomylus taylori	47980.97	PBDB
Sthenictis dolichops	665.14	(*1*)
Sthenictis junturensis	330.30	(*1*)
Stibarus montanus	1152.46	PBDB + regression
Stibarus obtusilobus	1416.00	PBDB + regression
Stibarus quadricuspis	2093.31	PBDB + regression
Stockia powayensis	161.34	PBDB + regression
Stratimus strobeli	20.09	(*1*)
Strigorhysis bridgerensis	91.55	PBDB + regression
Strigorhysis huerfanensis	176.39	PBDB + regression
Stygimys gratus	128.62	PBDB + regression
Stygimys jepseni	84.00	(*7*)
Stygimys kuszmauli	291.90	PBDB + regression

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Dataset S1 – continued from previous page

Species	Mass (g)	Source
Stylinodon mirus	47987.28	PBDB + regression
Subdromomeryx antilopinus	59874.14	(*1*)
Subhyracodon mitis	458341.99	(*83*)
Subhyracodon occidentalis	662391.44	PBDB + regression
Sunkahetanka geringensis	11158.98	(*1*)
Swaindelphys cifellii	24.57	PBDB
Symmetrodontomys simplicidens	26.84	(*1*)
Syndyoceras cooki	73865.41	(*1*)
Tachylagus gawneae	146.91	PBDB + regression
Taeniolabis taoensis	75621.27	PBDB + regression
Talpavoides dartoni	8.53	PBDB + regression
Talpavus conjunctus	45.48	PBDB + regression
Talpavus duplus	17.88	PBDB + regression
Talpavus nitidus	11.30	PBDB + regression
Tamias ateles	1.25	PBDB + regression
Tanymykter brachyodontus	102744.44	(*1*)
Tapiravus validus	64860.88	(*1*)
Tapirus simpsoni	369534.73	(*1*)
Tapochoerus egressus	9671.40	PBDB + regression
Tapochoerus mcmillini	4357.69	PBDB + regression
Tapocyon dawsonae	17454.68	PBDB + regression
Tapocyon robustus	21673.71	PBDB + regression
Tardontia nevadans	157.59	(*1*)
Tardontia occidentale	1.65	PBDB + regression
Tarka stylifera	3858.47	PBDB + regression
Tatmanius szalayi	46.59	(*84*)
Taxidea mexicana	10434.28	(*85*)
Taxidea taxus	7112.14	(*11*)
Tayassu protervus	45119.24	PBDB
Teilhardina americana	66.71	PBDB + regression
Teilhardina crassidens	57.16	PBDB + regression
Teleoceras meridianum	2022813.66	(*1*)
Teletaceras mortivallis	89575.08	PBDB + regression
Telmatherium altidens	2087486.17	PBDB + regression
Telmatherium cultridens	627910.03	PBDB + regression
Telmatherium manteoceras	478340.42	PBDB + regression
Temnocyon altigenis	32532.67	(*1*)
Temnocyon percussor	68871.66	(*1*)
Tenudomys bodei	43.38	(*1*)
Tenudomys macdonaldi	79.84	(*1*)
Tephrocyon rurestris	13095.19	(*1*)
Tetonius ambiguus	92.52	PBDB
Tetonius matthewi	107.32	PBDB + regression
Tetonius mckennai	57.16	PBDB + regression
Tetraclaenodon puercensis	9425.94	PBDB + regression
Tetrapassalus mckennai	5.04	PBDB
Texomys ritchiei	97.51	(*1*)

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Dataset S1 – continued from previous page

Species	Mass (g)	Source
Thinobadistes segnis	645890.00	(*33*)
Thinocyon velox	1924.12	PBDB + regression
Thinohyus lentus	101400.00	(*4*)
Thisbemys corrugatus	1.93	PBDB + regression
Thisbemys elachistos	1.60	PBDB + regression
Thisbemys perditus	1.85	PBDB + regression
Thisbemys uintensis	2.01	PBDB + regression
Thomomys bottae	114.82	(*11*)
Thomomys carsonensis	1.22	PBDB + regression
Thomomys gidleyi	37.34	(*1*)
Thryptacodon antiquus	4110.15	PBDB + regression
Thryptacodon australis	2744.65	PBDB + regression
Thryptacodon orthogonius	1536.41	PBDB + regression
Thryptacodon pseudarctos	6070.61	PBDB + regression
Thylacaelurus campester	35.01	PBDB + regression
Thylacaelurus montanus	63.45	PBDB + regression
Thylacodon pusillus	48.28	PBDB + regression
Ticholeptus zygomaticus	106937.52	(*1*)
Tillodon fodiens	49838.54	PBDB + regression
Tillomys senex	1.49	PBDB + regression
Tinimomys graybulliensis	11.30	PBDB + regression
Tinimomys tribos	5.32	(*86*)
Titanoides gidleyi	48022.06	PBDB + regression
Titanoides nanus	37406.72	PBDB + regression
Titanoides primaevus	72645.54	PBDB + regression
Tomarctus brevirostris	17500.77	(*1*)
Tomarctus hippophaga	13766.59	(*1*)
Torrejonia sirokyi	440.75	PBDB + regression
Toxotherium hunteri	91951.16	PBDB + regression
Tregosorex holmani	26.84	(*1*)
Tremarctos floridanus	149968.48	(*11*)
Trigenicus profectus	28723.88	PBDB + regression
Trigonias osborni	599072.86	PBDB + regression
Trigonias yoderensis	264875.92	PBDB + regression
Trigonictis cookii	7397.01	PBDB + regression
Trigonictis macrodon	419.89	(*1*)
Triisodon quivirensis	22180.76	PBDB + regression
Trilaccogaulus ovatus	103.54	(*1*)
Triplopus cubitalis	34118.20	PBDB + regression
Triplopus implicatus	64570.33	PBDB + regression
Triplopus obliquidens	95152.03	PBDB + regression
Triplopus rhinocerinus	88700.44	PBDB
Triplopus woodi	69515.35	PBDB
Tritemnodon agilis	10780.00	(*87*)
Tritemnodon strenuus	4702.60	PBDB + regression
Trogolemur amplior	60.27	PBDB + regression
Trogolemur myodes	32.59	PBDB + regression

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Dataset S1 – continued from previous page

Species	Mass (g)	Source
Trogomys rupinimenthae	12.55	(*1*)
Trogosus castoridens	25945.98	PBDB + regression
Trogosus grangeri	42730.29	PBDB + regression
Trogosus latidens	86402.00	PBDB + regression
Tubulodon atopum	186.75	PBDB + regression
Tubulodon taylori	113.11	PBDB
Tuscahomys medius	1.49	PBDB
Tuscahomys minor	1.33	PBDB
Tylocephalonyx skinneri	1696671.69	PBDB
Uintaceras radinskyi	516493.43	PBDB + regression
Uintacyon asodes	6096.02	PBDB + regression
Uintacyon massetericus	3203.72	PBDB + regression
Uintacyon rudis	1864.20	PBDB + regression
Uintanius ameghini	48.28	PBDB + regression
Uintanius rutherfurdi	51.17	PBDB + regression
Uintasorex montezumicus	2.40	PBDB + regression
Uintasorex parvulus	6.11	PBDB + regression
Uintatherium anceps	523092.59	PBDB + regression
Untermannerix copiosus	121.51	(*1*)
Unuchinia dysmathes	114.44	PBDB
Uriscus californicus	1.58	PBDB + regression
Urocyon cinereoargenteus	3829.00	PBDB
Ursavus brevirhinus	80000.00	NOW
Ursavus pawniensis	61697.58	(*1*)
Ursavus primaevus	90000.00	NOW
Ursus abstrusus	43499.17	PBDB + regression
Ursus americanus	93431.00	PBDB
Utahia carina	17.88	PBDB + regression
Utahia kayi	37.51	PBDB + regression
Valenia wilsoni	279.17	PBDB + regression
Vassacyon promicrodon	5427.03	PBDB + regression
Viverravus acutus	483.44	PBDB + regression
Viverravus gracilis	849.04	PBDB + regression
Viverravus laytoni	241.14	PBDB + regression
Viverravus lutosus	602.46	PBDB + regression
Viverravus minutus	602.46	PBDB + regression
Viverravus politus	1009.45	PBDB + regression
Viverravus rosei	148.81	PBDB + regression
Viverravus sicarius	1594.41	PBDB + regression
Vulpavus australis	1746.94	PBDB + regression
Vulpavus palustris	2833.89	PBDB + regression
Vulpavus profectus	3388.44	(*88*)
Vulpes stenognathus	7331.97	(*1*)
Vulpes velox	2197.86	(*11*)
Washakius insignis	111.45	PBDB + regression
Washakius izetti	73.44	PBDB + regression
Washakius woodringi	48.28	PBDB + regression

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Dataset S1 – continued from previous page

Species	Mass (g)	Source
Wilsoneumys planidens	51.70	PBDB
Worlandia inusitata	73.44	PBDB + regression
Wyolestes apheles	1594.41	PBDB + regression
Wyolestes iglesius	1288.90	PBDB + regression
Wyonycteris chalix	8.61	PBDB + regression
Xenicohippus craspedotum	10895.00	(*4*)
Xenicohippus grangeri	12284.22	PBDB + regression
Ysengrinia americana	110194.25	(*1*)
Yumaceras figginsi	293607.76	(*1*)
Yumaceras hamiltoni	247706.54	(*1*)
Yumaceras ruminalis	314896.72	(*1*)
Zapus burti	21.33	(*1*)
Zapus rinkeri	1.20	PBDB + regression
Zapus sandersi	18.92	(*1*)
Zemiodontomys burkei	1.57	PBDB + regression
Zetamys nebraskensis	60.34	(*1*)

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