Supplementary Material

Morphological adaptation of the Eutherian gastrointestinal tract to diet

Peter Langer and Marcus Clauss

Overview of the phylogeny used for analyses (FRITZ et al., 2009b) (Fig. S1-9).

Original dataset used (Table S1) and statistical results for the various phylogenetic Eutherian groups investigated in this study (Tables S2-S17).

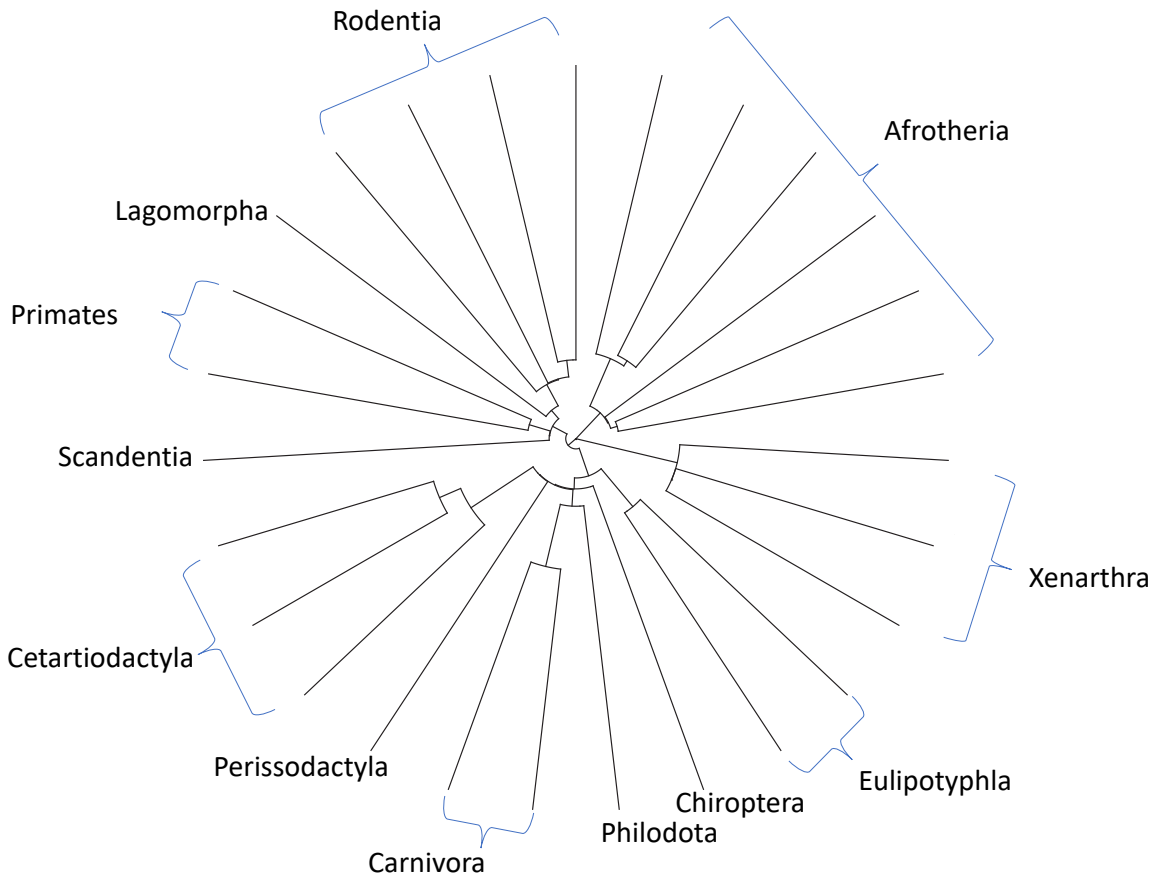

Figure S1 Overview over the general structure of the phylogenetic tree used in the present study

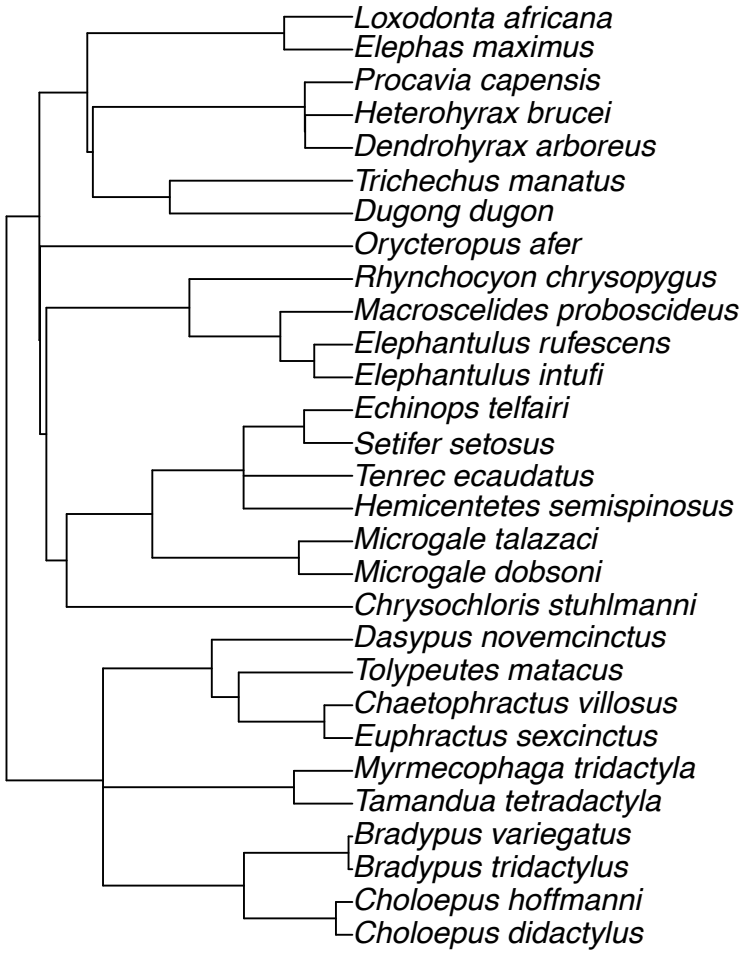

Figure S2 The phylogeny used in the present study for Afrotheria and Xenarthra

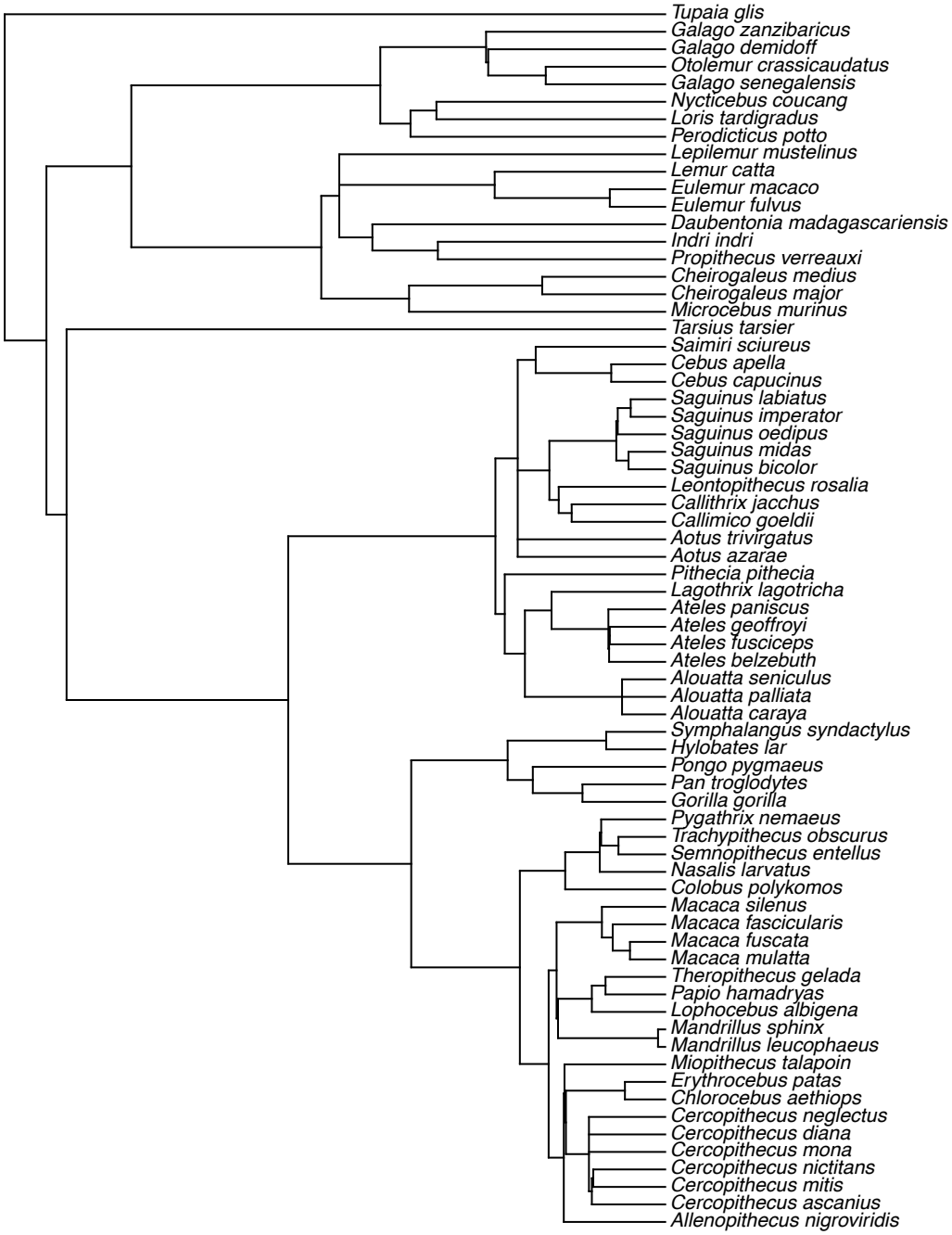

Figure S3 The phylogeny used in the present study for Scandentia and Primates

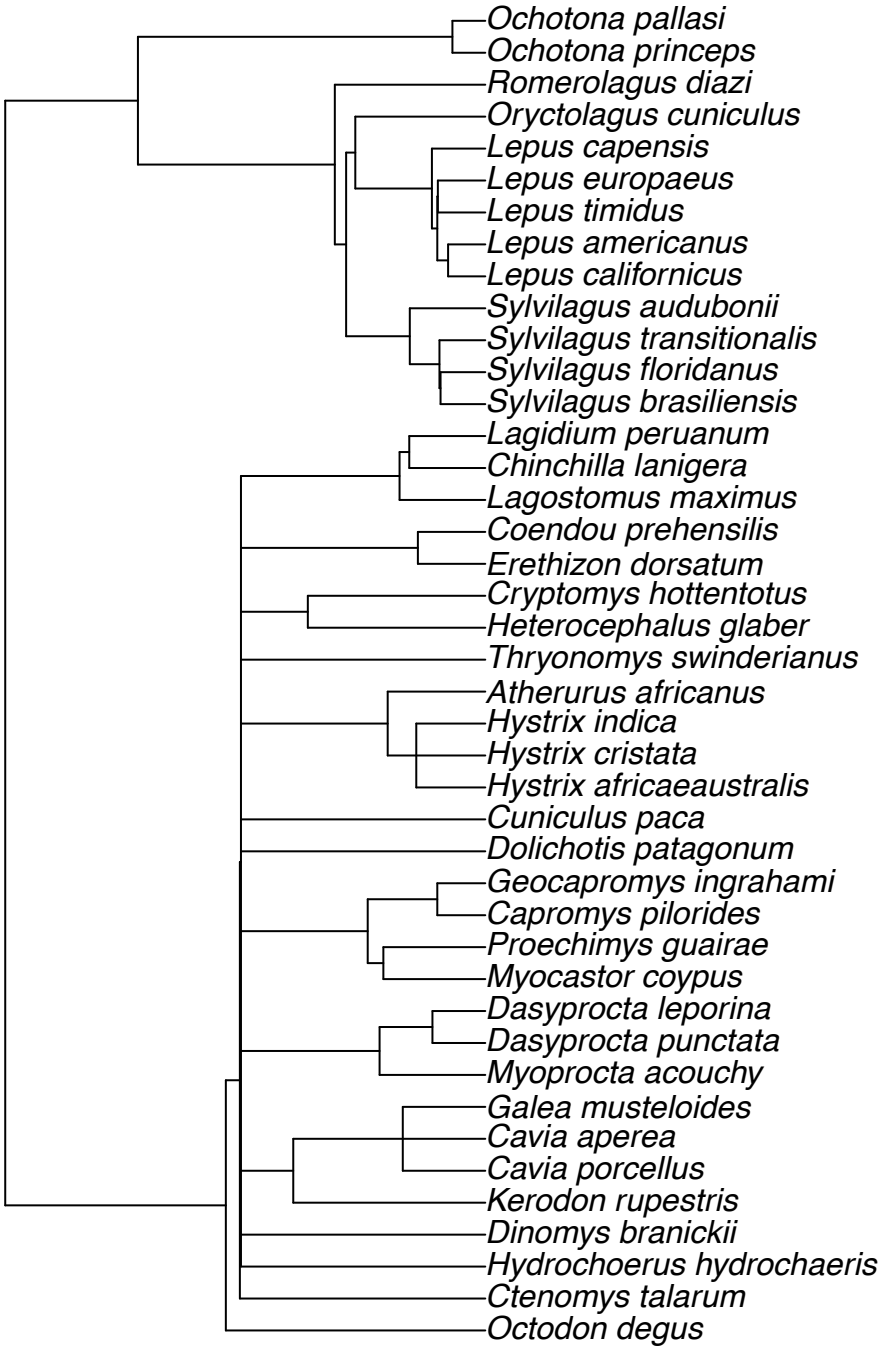

Figure S4 The phylogeny used in the present study for Lagomorpha and Hystricomorpha

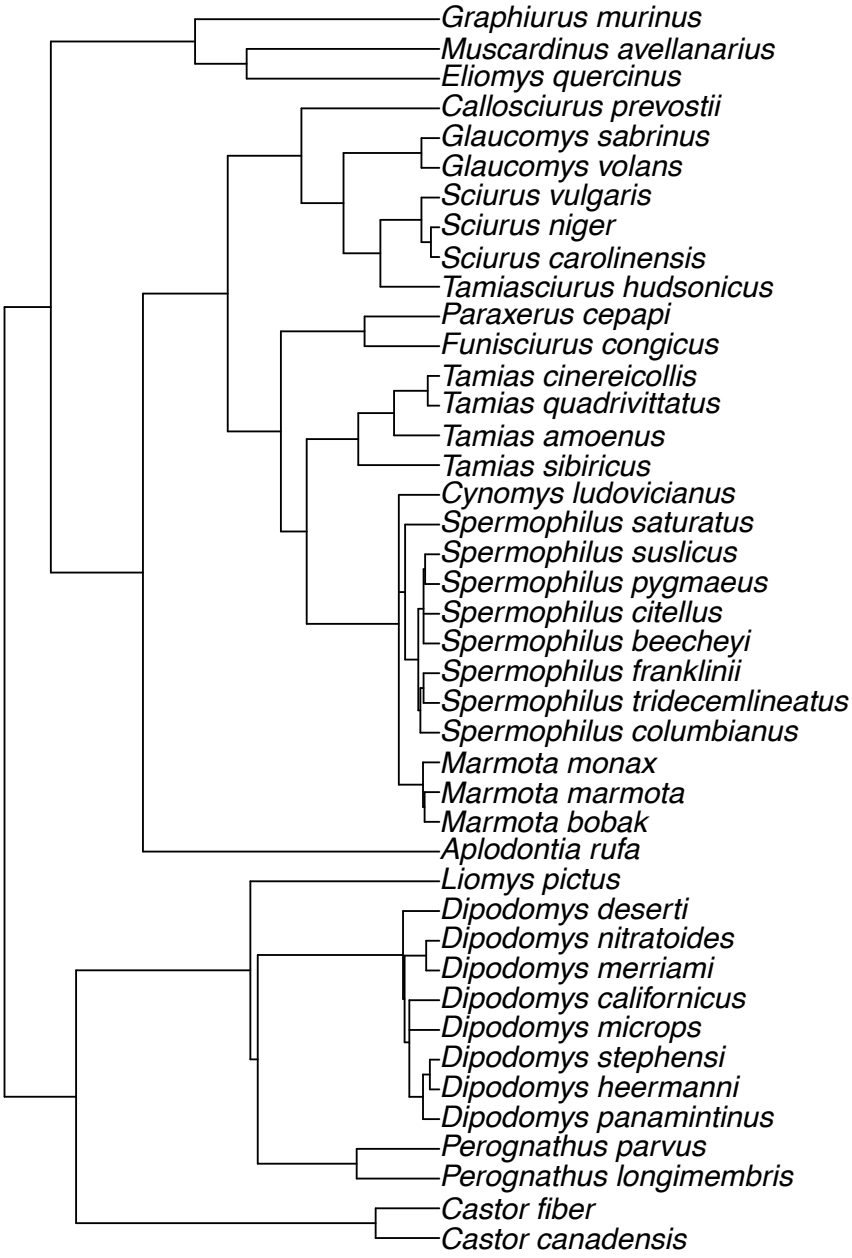

Figure S5 The phylogeny used in the present study for Sciuromorpha and Castorimorpha

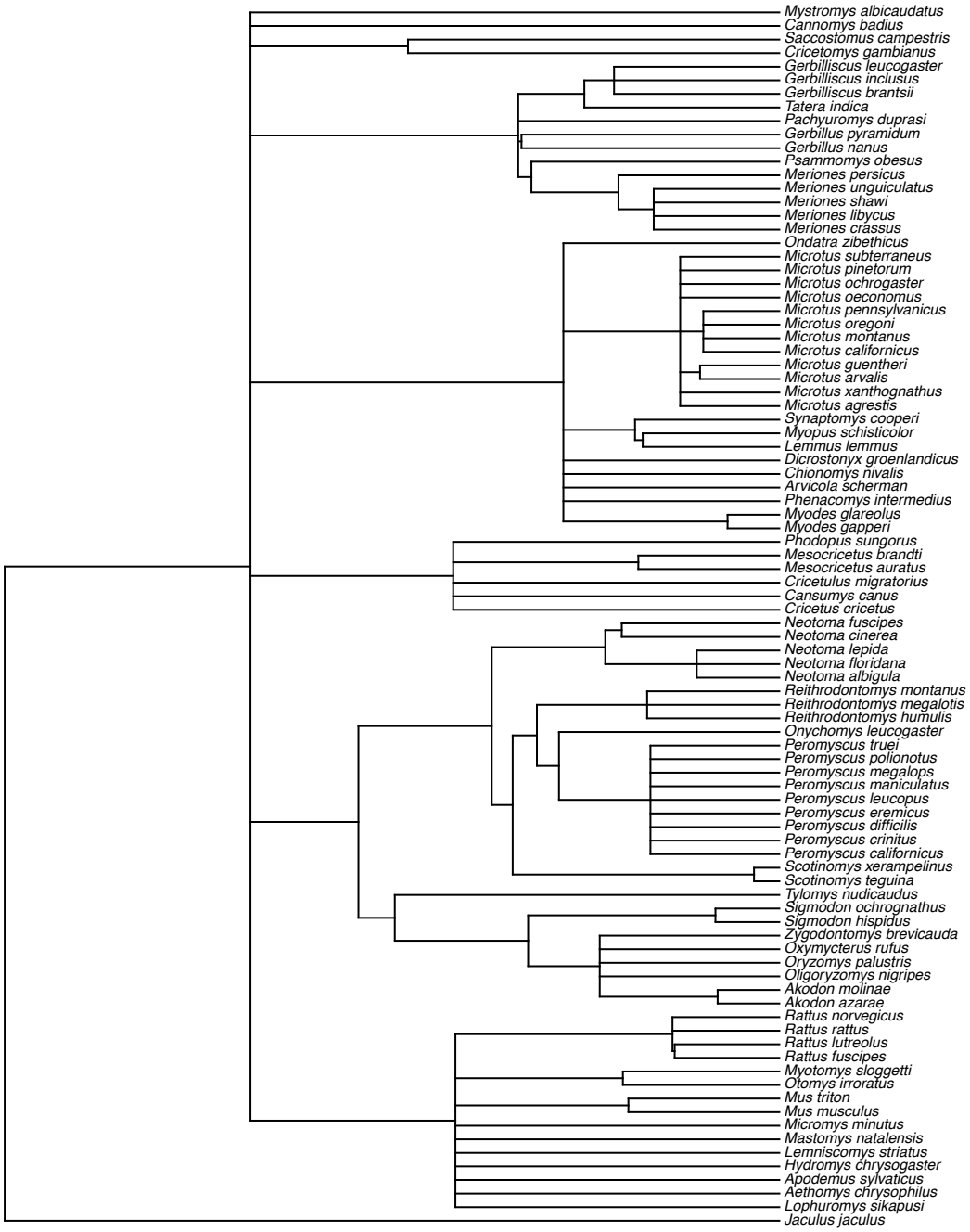

Figure S6 The phylogeny used in the present study for Myomorpha

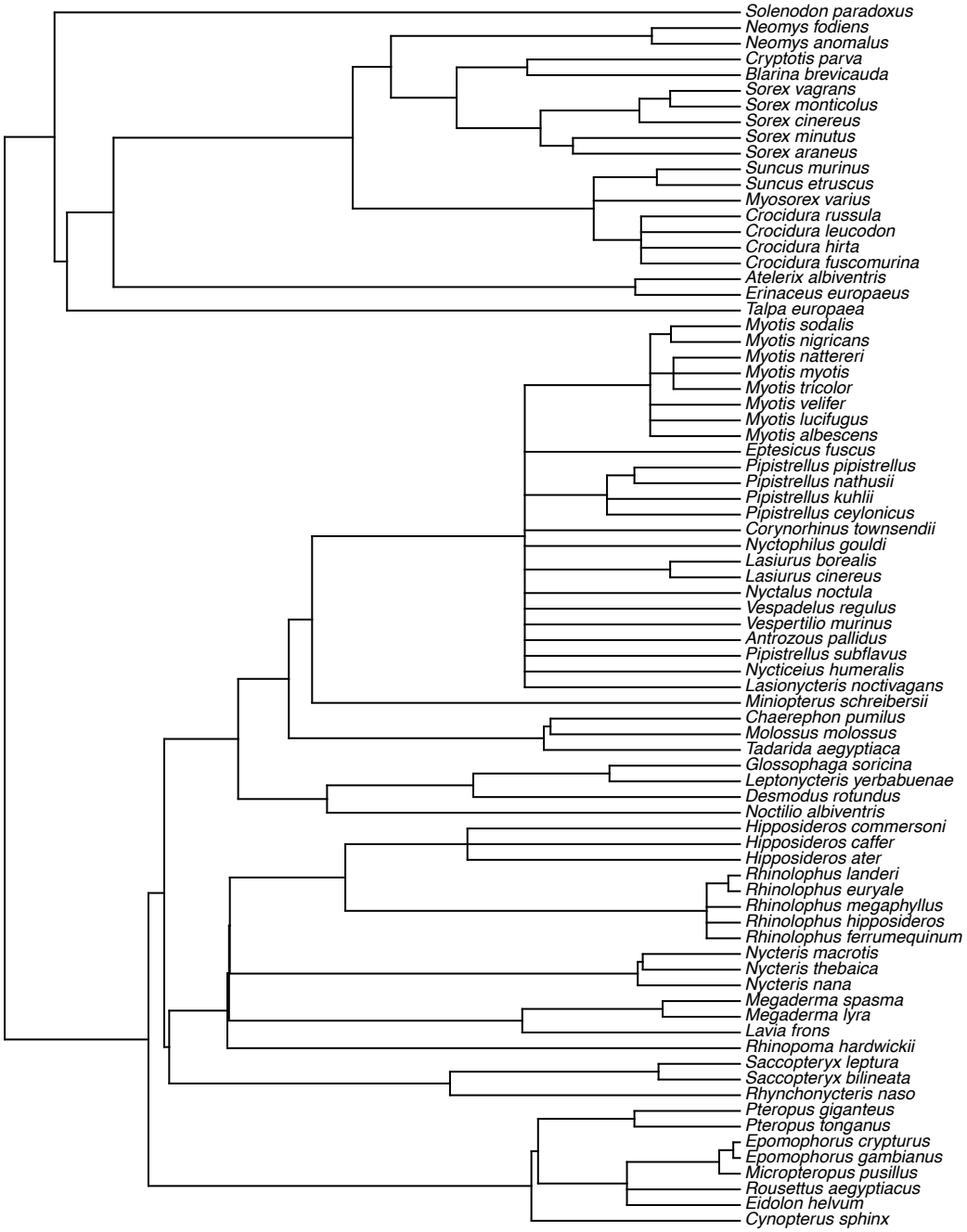

Figure S7 The phylogeny used in the present study for Eulipotyphla and Chiroptera

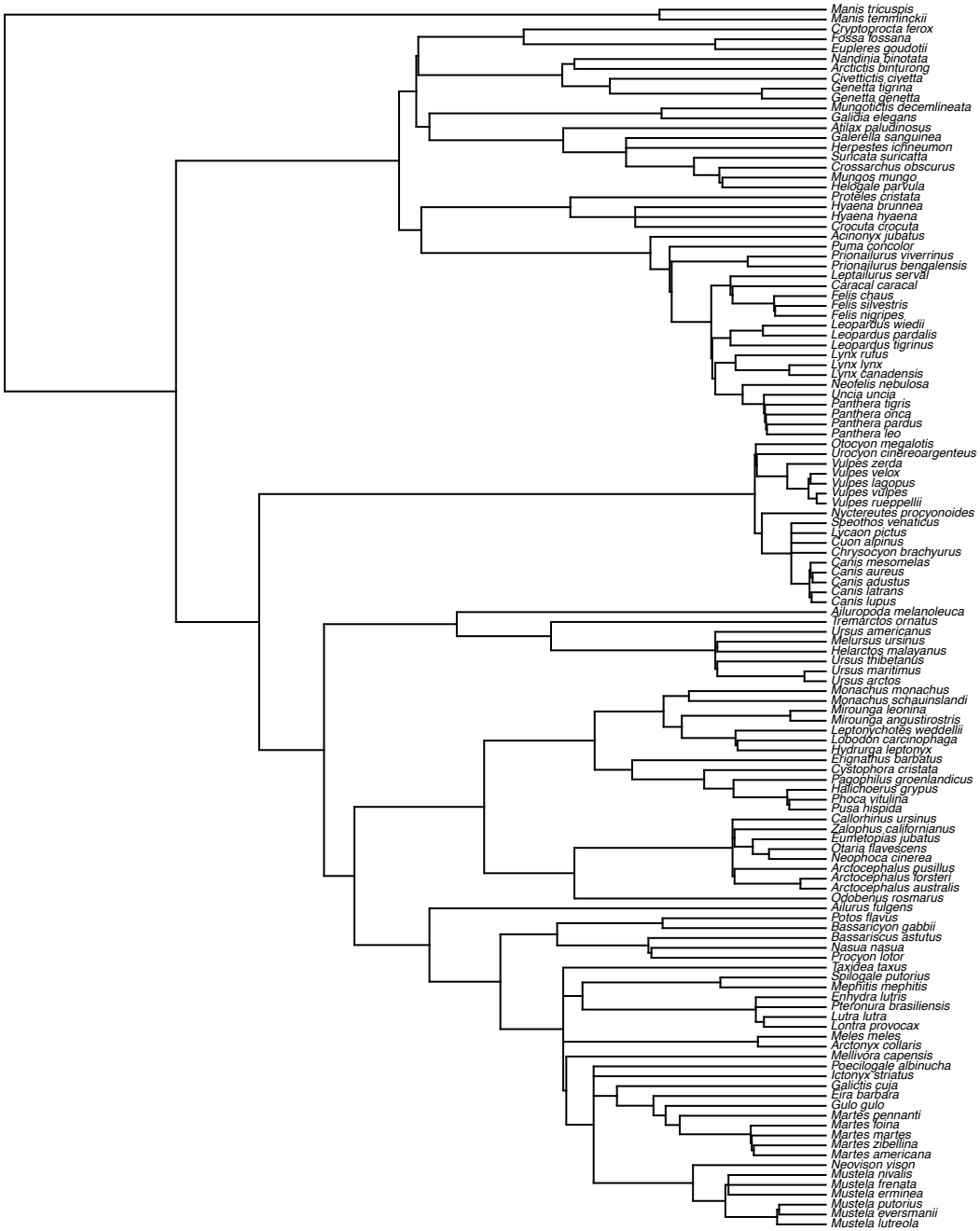

Figure S8 The phylogeny used in the present study for Philodota and Carnivora

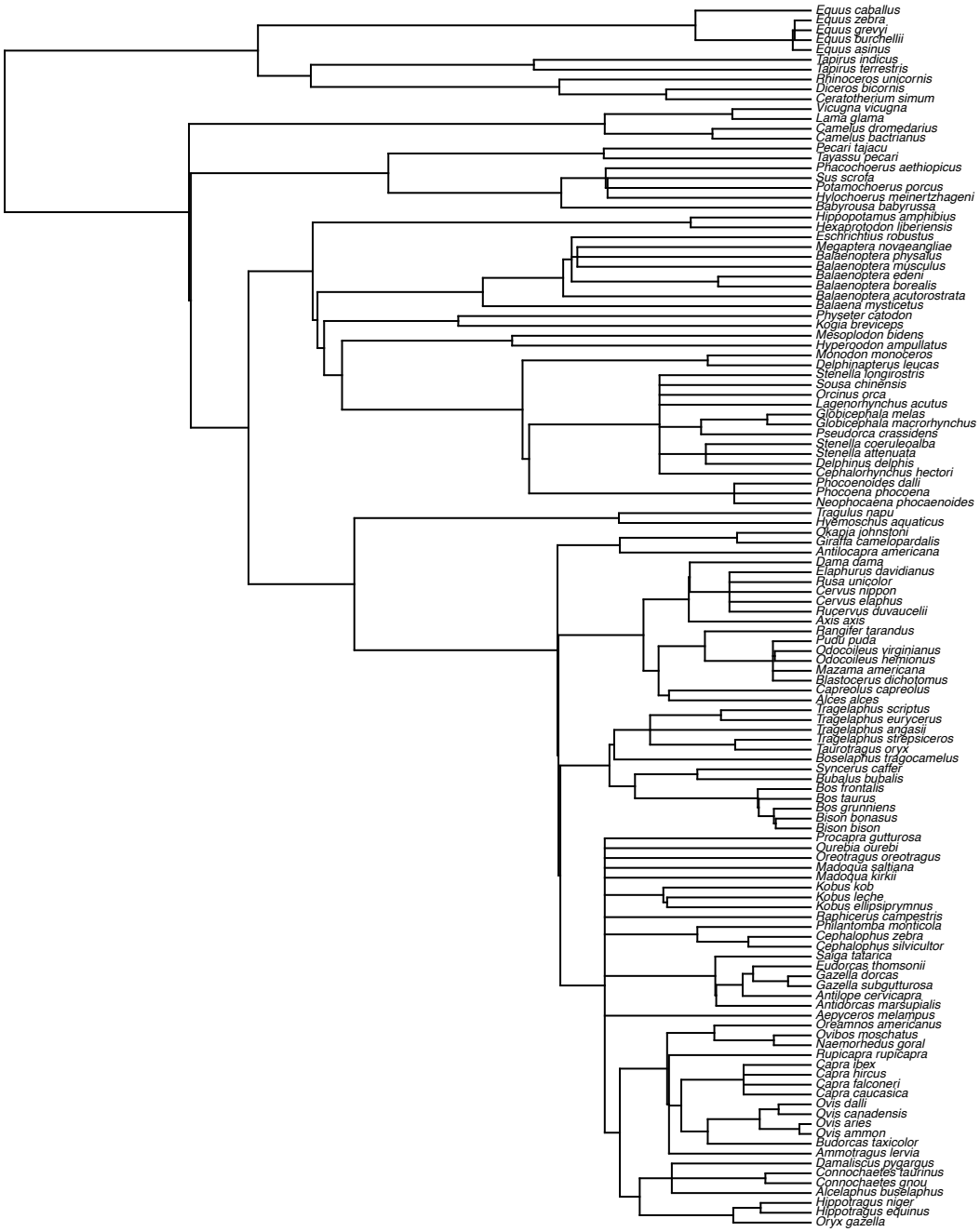

Figure S9 The phylogeny used in the present study for Perissodactyla and Cetartiodactyla

The data compilation in LANGER (2017; Table 1.6 of the monograph and Table S1 in the supplementary material) was used in the present study. Species nomenclature follows WILSON & REEDER (2005). Body mass was collected from various sources during the compilation of anatomical descriptions, and sources are listed in detail in Langer (2003). As explained and referenced in detail in Langer (2003), the crude fibre content of the natural diet of species was derived from quantitative estimates of diet composition and nutrient composition tables domestic herbivores and carnivores. The coding for complexity of the GI tract used was introduced by Langer (2003) and accounts for 18 different qualitative characteristics.

Table S1 Dataset from LANGER (2017) used in the present study, including an indication of the species sets[1] analysed (and whether a species was considered aquatic), estimates (based on literature) of body mass, crude fibre content in the natural diet, and complexity indices for different sections of the gastrointestinal tract (GIT). Note that statistical analyses were performed on ranked data (with ranks ascribed continuously, depending on the dataset used).

[1]the abbreviations denote, in the first column, the 'superorders' afr Afrotheria, xen Xenarthra, euar Euarchontoglires, laur Laurasiatheria; in the second column mainly mammalian 'orders' prim Primates, rod Rodentia, lag Lagomorpha, chir Chiroptera, carn Carnivora, periss Perissodactyla, art Articdactyla (without Cetacea), cet Cetacea; in the third column the rodent 'suborders' sciu Sciuromorpha, cast Castorimorpha, myo Myomorpha, hyst Hystricomorpha

Species	analysed in species sets[1]		aquatic	Body mass g	Crude fibre g/kg dry matter	Stomach index	Caecum index	Colon index	Large intestine index	GIT index
Microgale talazaci	afr		0	50	15	1	0	0	0	1
Microgale dobsoni	afr		0	34.5	15	1	0	0	0	1
Echinops telfairi	afr		0	180	15	1	0	0	0	1
Hemicentetes semispinosus	afr		0	202.5	15	1	0	0	0	1
Setifer setosus	afr		0	225	15	1	0	0	0	1
Tenrec ecaudatus	afr		0	2000	15	1	0	0	0	1
Chrysochloris stuhlmanni	afr		0	39.5	15	1	0	0	0	1
Elephantulus intufi	afr		0	49.3	26	1	1	0	1	2
Elephantulus rufescens	afr		0	58	26	1	1	0	1	2
Macroscelides proboscideus	afr		0	45	100	1	1	0	1	2
Rhynchocyon chrysopygus	afr		0	450	26	1	1	0	1	2
Orycteropus afer	afr		0	60000	26	2	1	1	2	4
Dendrohyrax arboreus	afr		0	4000	207	2	2	1	3	5
Heterohyrax brucei	afr		0	4000	207	2	2	1	3	5
Procavia capensis	afr		0	17000	275	2	2	1	3	5
Elephas maximus	afr		0	273000	275	1	2	0	2	3
Loxodonta africana	afr		0	2766000	275	1	2	0	2	3
Dugong dugon	afr		1	275000	207	2	1	0	1	3
Trichechus manatus	afr		1	1000000	207	2	1	0	1	3
Dasypus novemcinctus	xen		0	4000	62	2	0	0	0	2
Chaetophractus villosus	xen		0	1800	43	2	1	0	1	3
Euphractus sexcinctus	xen		0	4900	43	2	1	0	1	3
Tolypeutes matacus	xen		0	1100	26	2	0	0	0	2
Bradypus tridactylus	xen		0	4250	180	4	0	0	0	4
Bradypus variegatus	xen		0	4250	180	4	0	0	0	4
Choloepus didactylus	xen		0	7600	180	4	0	0	0	4
Choloepus hoffmanni	xen		0	900	180	4	0	0	0	4
Myrmecophaga tridactyla	xen		0	30500	26	2	0	0	0	2
Tamandua tetradactyla	xen		0	5660	62	1	1	0	1	2
Tupaia glis	euar		0	200	43	1	1	0	1	2
Cheirogaleus major	euar	prim	0	400	43	1	1	0	1	2
Cheirogaleus medius	euar	prim	0	250	43	1	1	0	1	2
Microcebus murinus	euar	prim	0	70	43	1	1	0	1	2
Eulemur macaco	euar	prim	0	2450	153	1	2	1	3	4
Eulemur fulvus	euar	prim	0	1924	153	1	2	1	3	4
Lemur catta	euar	prim	0	2290	216	1	2	1	3	4
Lepilemur mustelinus	euar	prim	0	600	98	1	2	1	3	4
Indri indri	euar	prim	0	13000	153	1	1	0	1	2

Propithecus verreauxi	euar	prim	0	3600	207	1	1	0	1	2
Daubentonia madagascariensis	euar	prim	0	2000	62	1	1	0	1	2
Loris tardigradus	euar	prim	0	222	43	1	2	1	3	4
Nycticebus coucang	euar	prim	0	1230	62	1	2	1	3	4
Perodicticus potto	euar	prim	0	1348	110	1	2	1	3	4
Galago senegalensis	euar	prim	0	229	47	1	1	1	2	3
Galago zanzibaricus	euar	prim	0	120	47	1	1	1	2	3
Galago demidoff	euar	prim	0	60	47	1	1	1	2	3
Otolemur crassicaudatus	euar	prim	0	1030	62	1	1	1	2	3
Saguinus midas	euar	prim	0	483	99	1	1	1	2	3
Saguinus bicolor	euar	prim	0	400	99	1	1	1	2	3
Saguinus oedipus	euar	prim	0	510	99	1	1	1	2	3
Saguinus labiatus	euar	prim	0	400	99	1	1	1	2	3
Saguinus imperator	euar	prim	0	350	99	1	1	1	2	3
Callimico goeldii	euar	prim	0	472	98	1	1	1	2	3
Callithrix jacchus	euar	prim	0	241	32	1	1	1	2	3
Leontopithecus rosalia	euar	prim	0	745	43	1	1	1	2	3
Cebus apella	euar	prim	0	2895	91	1	1	0	1	2
Cebus capucinus	euar	prim	0	2700	91	1	1	0	1	2
Saimiri sciureus	euar	prim	0	590	43	1	1	1	2	3
Ateles paniscus	euar	prim	0	8691.7	98	1	1	1	2	3
Ateles geoffroyi	euar	prim	0	7600	98	1	1	1	2	3
Ateles fusciceps	euar	prim	0	8800	98	1	1	1	2	3
Ateles belzebuth	euar	prim	0	4540	98	1	1	1	2	3
Lagothrix lagotricha	euar	prim	0	5400	153	1	1	1	2	3
Alouatta seniculus	euar	prim	0	5120	153	1	1	1	2	3
Alouatta caraya	euar	prim	0	5855	153	1	1	1	2	3
Alouatta palliata	euar	prim	0	7670	153	1	1	1	2	3
Aotus azarae	euar	prim	0	962.9	73	1	1	1	2	3
Aotus trivirgatus	euar	prim	0	970	73	1	1	1	2	3
Pithecia pithecia	euar	prim	0	1046	110	1	1	1	2	3
Allenopithecus nigroviridis	euar	prim	0	3750	84	1	2	1	3	4
Macaca mulatta	euar	prim	0	7514.5	113	1	2	1	3	4
Macaca fascicularis	euar	prim	0	3975	113	1	2	1	3	4
Macaca silenus	euar	prim	0	6000	113	1	2	1	3	4
Macaca fuscata	euar	prim	0	9900	113	1	2	1	3	4
Cercopithecus mona	euar	prim	0	4500	117	1	2	1	3	4
Cercopithecus neglectus	euar	prim	0	8000	117	1	2	1	3	4
Cercopithecus nictitans	euar	prim	0	8000	117	1	2	1	3	4
Cercopithecus mitis	euar	prim	0	7000	117	1	2	1	3	4
Cercopithecus ascanius	euar	prim	0	6500	117	1	2	1	3	4
Cercopithecus diana	euar	prim	0	5500	117	1	2	1	3	4
Chlorocebus aethiops	euar	prim	0	4500	169	1	2	1	3	4
Erythrocebus patas	euar	prim	0	10000	207	1	2	1	3	4
Lophocebus albigena	euar	prim	0	10000	43	1	2	1	3	4
Mandrillus leucophaeus	euar	prim	0	19700	110	1	2	1	3	4
Mandrillus sphinx	euar	prim	0	11666.7	110	1	2	1	3	4
Miopithecus talapoin	euar	prim	0	1300	110	1	2	1	3	4
Papio hamadryas	euar	prim	0	28250	146	1	2	1	3	4

Theropithecus gelada	euar	prim		0	9830	136	1	2	1	3	4
Colobus polykomos	euar	prim		0	6500	153	4	2	1	3	7
Nasalis larvatus	euar	prim		0	9873	207	4	2	1	3	7
Pygathrix nemaeus	euar	prim		0	4085	207	4	2	1	3	7
Semnopithecus entellus	euar	prim		0	10000	110	4	2	1	3	7
Trachypithecus obscurus	euar	prim		0	5400	153	4	2	1	3	7
Hylobates lar	euar	prim		0	6800	153	1	3	1	4	5
Symphalangus syndactylus	euar	prim		0	10300	67	1	3	1	4	5
Gorilla gorilla	euar	prim		0	92500	207	1	3	1	4	5
Pan troglodytes	euar	prim		0	93000	43	1	3	1	4	5
Pongo pygmaeus	euar	prim		0	37000	153	1	3	1	4	5
Tarsius tarsier	euar	prim		0	120	15	1	1	0	1	2
Aplodontia rufa	euar	rod	sciu	0	364	207	1	1	0	1	2
Sciurus carolinensis	euar	rod	sciu	0	425	110	1	1	0	1	2
Sciurus niger	euar	rod	sciu	0	850	102	1	1	0	1	2
Sciurus vulgaris	euar	rod	sciu	0	300	34	1	1	0	1	2
Tamiasciurus hudsonicus	euar	rod	sciu	0	190	98	1	1	0	1	2
Glaucomys volans	euar	rod	sciu	0	60	77	1	1	0	1	2
Glaucomys sabrinus	euar	rod	sciu	0	138	41	1	1	0	1	2
Callosciurus prevostii	euar	rod	sciu	0	500	41	1	1	0	1	2
Funisciurus congicus	euar	rod	sciu	0	111	110	1	1	0	1	2
Paraxerus cepapi	euar	rod	sciu	0	250	169	1	1	0	1	2
Spermophilus pygmaeus	euar	rod	sciu	0	240	99	1	1	0	1	2
Spermophilus citellus	euar	rod	sciu	0	275	275	1	1	0	1	2
Spermophilus suslicus	euar	rod	sciu	0	275	275	1	1	0	1	2
Spermophilus beecheyi	euar	rod	sciu	0	750	41	1	1	0	1	2
Spermophilus tridecemlineatus	euar	rod	sciu	0	161	124	1	1	0	1	2
Spermophilus franklinii	euar	rod	sciu	0	496.1	192	1	1	0	1	2
Spermophilus saturatus	euar	rod	sciu	0	446.5	43	1	1	0	1	2
Spermophilus columbianus	euar	rod	sciu	0	336	136	1	1	0	1	2
Cynomys ludovicianus	euar	rod	sciu	0	1200	343	1	1	0	1	2
Marmota monax	euar	rod	sciu	0	5500	205	1	1	0	1	2
Marmota marmota	euar	rod	sciu	0	6000	275	1	1	0	1	2
Marmota bobak	euar	rod	sciu	0	6500	275	1	1	0	1	2
Tamias sibiricus	euar	rod	sciu	0	90	153	1	1	0	1	2
Tamias quadrivittatus	euar	rod	sciu	0	155	153	1	1	0	1	2
Tamias cinereicollis	euar	rod	sciu	0	70.9	153	1	1	0	1	2
Tamias amoenus	euar	rod	sciu	0	47	153	1	1	0	1	2
Graphiurus murinus	euar	rod	sciu	0	27.8	62	1	0	0	0	1
Eliomys quercinus	euar	rod	sciu	0	72.5	62	1	0	0	0	1
Muscardinus avellanarius	euar	rod	sciu	0	20	84	1	0	0	0	1
Castor canadensis	euar	rod	cast	0	24000	207	2	1	1	2	4
Castor fiber	euar	rod	cast	0	32000	207	2	1	1	2	4
Dipodomys nitratoides	euar	rod	cast	0	37	99	1	0	0	0	1
Dipodomys panamintinus	euar	rod	cast	0	65	99	1	0	0	0	1
Dipodomys stephensi	euar	rod	cast	0	75.6	99	1	0	0	0	1
Dipodomys microps	euar	rod	cast	0	80.8	99	1	0	0	0	1
Dipodomys merriami	euar	rod	cast	0	35	99	1	0	0	0	1
Dipodomys heermanni	euar	rod	cast	0	72.1	99	1	0	0	0	1

Dipodomys deserti	euar	rod	cast	0	115	99	1	0	0	0	1
Dipodomys californicus	euar	rod	cast	0	22	99	1	0	0	0	1
Perognathus longimembris	euar	rod	cast	0	8.3	110	1	0	0	0	1
Perognathus parvus	euar	rod	cast	0	23	110	1	0	0	0	1
Liomys pictus	euar	rod	cast	0	44	153	1	0	0	0	1
Jaculus jaculus	euar	rod	myo	0	60	110	1	1	0	1	2
Cricetomys gambianus	euar	rod	myo	0	1500	117	4	1	0	1	5
Saccostomus campestris	euar	rod	myo	0	45.4	63	2	0	0	0	2
Mystromys albicaudatus	euar	rod	myo	0	122	153	5	1	0	1	6
Microtus californicus	euar	rod	myo	0	70.9	275	3	1	0	1	4
Microtus xanthognathus	euar	rod	myo	0	141.8	207	3	1	0	1	4
Microtus arvalis	euar	rod	myo	0	22	192	3	1	0	1	4
Microtus agrestis	euar	rod	myo	0	30	275	3	1	0	1	4
Microtus guentheri	euar	rod	myo	0	54	275	3	1	0	1	4
Microtus oeconomus	euar	rod	myo	0	32	216	3	1	0	1	4
Microtus subterraneus	euar	rod	myo	0	18.5	216	3	1	0	1	4
Microtus montanus	euar	rod	myo	0	56.7	216	3	1	0	1	4
Microtus pennsylvanicus	euar	rod	myo	0	33.5	205	3	1	0	1	4
Microtus oregoni	euar	rod	myo	0	18.4	153	3	1	0	1	4
Microtus pinetorum	euar	rod	myo	0	29.5	216	3	1	0	1	4
Microtus ochrogaster	euar	rod	myo	0	35.4	216	3	1	0	1	4
Arvicola scherman	euar	rod	myo	0	120	275	2	1	0	1	3
Chionomys nivalis	euar	rod	myo	0	43	207	3	1	0	1	4
Dicrostonyx groenlandicus	euar	rod	myo	0	76	216	5	1	0	1	6
Lemmus lemmus	euar	rod	myo	0	70	275	2	1	0	1	3
Myodes gapperi	euar	rod	myo	0	26.9	99	5	1	0	1	6
Myodes glareolus	euar	rod	myo	0	23	192	5	1	0	1	6
Myopus schisticolor	euar	rod	myo	0	32.5	275	2	1	0	1	3
Ondatra zibethicus	euar	rod	myo	0	1245	145	3	1	0	1	4
Phenacomys intermedius	euar	rod	myo	0	34	62	3	1	0	1	4
Synaptomys cooperi	euar	rod	myo	0	29.9	216	3	0	0	0	3
Reithrodontomys megalotis	euar	rod	myo	0	12.5	110	5	1	0	1	6
Reithrodontomys humulis	euar	rod	myo	0	11.8	275	3	1	0	1	4
Reithrodontomys montanus	euar	rod	myo	0	8.5	343	5	1	0	1	6
Neotoma fuscipes	euar	rod	myo	0	417.1	61	5	1	0	1	6
Neotoma albigula	euar	rod	myo	0	198	136	5	1	0	1	6
Neotoma floridana	euar	rod	myo	0	290	153	5	1	0	1	6
Neotoma lepida	euar	rod	myo	0	132.3	98	5	1	0	1	6
Neotoma cinerea	euar	rod	myo	0	271	207	5	1	0	1	6
Onychomys leucogaster	euar	rod	myo	0	30	43	3	0	0	0	3
Peromyscus truei	euar	rod	myo	0	27	81	5	1	0	1	6
Peromyscus difficilis	euar	rod	myo	0	28	81	5	1	0	1	6
Peromyscus crinitus	euar	rod	myo	0	17.6	81	5	1	0	1	6
Peromyscus californicus	euar	rod	myo	0	38	81	5	1	0	1	6
Peromyscus eremicus	euar	rod	myo	0	22	110	5	1	0	1	6
Peromyscus megalops	euar	rod	myo	0	71	81	5	1	0	1	6
Peromyscus maniculatus	euar	rod	myo	0	21	62	5	1	0	1	6
Peromyscus leucopus	euar	rod	myo	0	26	62	4	1	0	1	5
Peromyscus polionotus	euar	rod	myo	0	15	98	5	1	0	1	6

Scotinomys xerampelinus	euar	rod	myo	0	15	45	2	0	0	0	2
Scotinomys teguina	euar	rod	myo	0	15	45	5	1	0	1	6
Akodon molinae	euar	rod	myo	0	31.8	156	2	0	0	0	2
Akodon azarae	euar	rod	myo	0	29.8	117	2	0	0	0	2
Oligoryzomys nigripes	euar	rod	myo	0	22.7	110	2	1	0	1	3
Oryzomys palustris	euar	rod	myo	0	59.5	55	2	1	0	1	3
Oxymycterus rufus	euar	rod	myo	0	75.4	26	3	1	0	1	4
Sigmodon hispidus	euar	rod	myo	0	140	185	2	1	0	1	3
Sigmodon ochrognathus	euar	rod	myo	0	85.1	103	2	0	0	0	2
Zygodontomys brevicauda	euar	rod	myo	0	65.2	62	2	0	0	0	2
Cansumys canus	euar	rod	myo	0	110	136	1	0	0	0	1
Cricetulus migratorius	euar	rod	myo	0	30.5	62	4	1	0	1	5
Cricetus cricetus	euar	rod	myo	0	200	84	4	1	0	1	5
Mesocricetus auratus	euar	rod	myo	0	90	62	4	1	0	1	5
Mesocricetus brandti	euar	rod	myo	0	110	51	4	1	0	1	5
Phodopus sungorus	euar	rod	myo	0	2709	62	5	1	0	1	6
Tylomys nudicaudus	euar	rod	myo	0	280	98	2	0	0	0	2
Lophuromys sikapusi	euar	rod	myo	0	75.5	79	3	1	0	1	4
Psammomys obesus	euar	rod	myo	0	212	207	5	1	0	1	6
Tatera indica	euar	rod	myo	0	110	62	2	2	0	2	4
Gerbilliscus leucogaster	euar	rod	myo	0	69.9	99	2	2	0	2	4
Gerbilliscus inclusus	euar	rod	myo	0	118.5	136	2	2	0	2	4
Gerbilliscus brantsii	euar	rod	myo	0	79.9	45	2	2	0	2	4
Gerbillus pyramidum	euar	rod	myo	0	65	221	2	2	0	2	4
Gerbillus nanus	euar	rod	myo	0	22	221	2	2	0	2	4
Meriones libycus	euar	rod	myo	0	100	123	2	2	0	2	4
Meriones shawi	euar	rod	myo	0	185	103	2	2	0	2	4
Meriones crassus	euar	rod	myo	0	105	103	2	2	0	2	4
Meriones unguiculatus	euar	rod	myo	0	53	153	2	2	0	2	4
Meriones persicus	euar	rod	myo	0	110	45	2	2	0	2	4
Pachyuromys duprasi	euar	rod	myo	0	50	99	3	1	0	1	4
Aethomys chrysophilus	euar	rod	myo	0	85	99	2	1	0	1	3
Apodemus sylvaticus	euar	rod	myo	0	19.5	43	4	2	0	2	6
Hydromys chrysogaster	euar	rod	myo	0	751.8	62	3	1	0	1	4
Lemniscomys striatus	euar	rod	myo	0	50	62	2	2	0	2	4
Mastomys natalensis	euar	rod	myo	0	65.5	80	4	1	0	1	5
Micromys minutus	euar	rod	myo	0	55.5	45	3	1	0	1	4
Mus musculus	euar	rod	myo	0	20.5	110	3	1	0	1	4
Mus triton	euar	rod	myo	0	11.5	110	3	1	0	1	4
Rattus lutreolus	euar	rod	myo	0	124	127	2	1	0	1	3
Rattus norvegicus	euar	rod	myo	0	330	127	2	1	0	1	3
Rattus rattus	euar	rod	myo	0	187.5	127	2	1	0	1	3
Rattus fuscipes	euar	rod	myo	0	145	127	2	1	0	1	3
Myotomys sloggetti	euar	rod	myo	0	129	207	2	2	0	2	4
Otomys irroratus	euar	rod	myo	0	118	275	2	2	0	2	4
Cannomys badius	euar	rod	myo	0	325	153	2	2	0	2	4
Cryptomys hottentotus	euar	rod	myo	0	126.5	216	1	2	0	2	3
Heterocephalus glaber	euar	rod	hyst	0	55	98	1	2	0	2	3
Atherurus africanus	euar	rod	hyst	0	2750	98	1	2	1	3	4

Hystrix africaeaustralis	euar	rod	hyst	0	15157.5	135	1	2	1	3	4
Hystrix cristata	euar	rod	hyst	0	20000	135	1	2	1	3	4
Hystrix indica	euar	rod	hyst	0	20000	135	1	2	1	3	4
Ctenomys talarum	euar	rod	hyst	0	150	207	1	2	0	2	3
Proechimys guairae	euar	rod	hyst	0	300	62	1	2	0	2	3
Thryonomys swinderianus	euar	rod	hyst	0	2000	153	1	2	0	2	3
Coendou prehensilis	euar	rod	hyst	0	5000	84	1	2	0	2	3
Erethizon dorsatum	euar	rod	hyst	0	5000	207	1	2	0	2	3
Chinchilla lanigera	euar	rod	hyst	0	500	153	1	2	0	2	3
Lagidium peruanum	euar	rod	hyst	0	1200	275	1	2	0	2	3
Lagostomus maximus	euar	rod	hyst	0	3000	168	1	2	0	2	3
Dinomys branickii	euar	rod	hyst	0	13000	153	1	0	0	0	1
Cavia aperea	euar	rod	hyst	0	500	207	1	2	0	2	3
Cavia porcellus	euar	rod	hyst	0	1000	207	1	2	0	2	3
Galea musteloides	euar	rod	hyst	0	400	216	1	2	0	2	3
Dolichotis patagonum	euar	rod	hyst	0	7856	343	1	2	0	2	3
Hydrochoerus hydrochaeris	euar	rod	hyst	0	30000	207	1	2	1	3	4
Kerodon rupestris	euar	rod	hyst	0	950	207	1	2	0	2	3
Dasyprocta leporina	euar	rod	hyst	0	2750	157	1	2	0	2	3
Dasyprocta punctata	euar	rod	hyst	0	2700	157	1	2	0	2	3
Myoprocta acouchy	euar	rod	hyst	0	1000	153	1	2	0	2	3
Cuniculus paca	euar	rod	hyst	0	8200	153	1	2	0	2	3
Octodon degus	euar	rod	hyst	0	250	216	1	2	0	2	3
Myocastor coypus	euar	rod	hyst	0	6000	163	1	2	0	2	3
Capromys pilorides	euar	rod	hyst	0	4300	153	1	2	0	2	3
Geocapromys ingrahami	euar	rod	hyst	0	700	207	1	2	0	2	3
Ochotona princeps	euar	lag		0	146.5	275	1	3	1	4	5
Ochotona pallasi	euar	lag		0	150	207	1	3	1	4	5
Lepus timidus	euar	lag		0	3000	239	1	3	1	4	5
Lepus americanus	euar	lag		0	1500	239	1	3	1	4	5
Lepus europaeus	euar	lag		0	4500	239	1	3	1	4	5
Lepus californicus	euar	lag		0	2485	239	1	3	1	4	5
Lepus capensis	euar	lag		0	1800	239	1	3	1	4	5
Sylvilagus transitionalis	euar	lag		0	1190.8	207	1	3	1	4	5
Sylvilagus floridanus	euar	lag		0	1360.8	207	1	3	1	4	5
Sylvilagus audubonii	euar	lag		0	702	207	1	3	1	4	5
Sylvilagus brasiliensis	euar	lag		0	854.5	207	1	3	1	4	5
Oryctolagus cuniculus	euar	lag		0	2000	239	1	3	1	4	5
Romerolagus diazi	euar	lag		0	1000	343	1	3	1	4	5
Atelerix albiventris	laur			0	485	50	1	0	0	0	1
Erinaceus europaeus	laur			0	912.5	50	1	0	0	0	1
Solenodon paradoxus	laur			0	800	84	1	0	0	0	1
Crocidura russula	laur			0	8	15	1	0	0	0	1
Crocidura leucodon	laur			0	10.5	15	1	0	0	0	1
Crocidura fuscomurina	laur			0	6.5	15	1	0	0	0	1
Crocidura hirta	laur			0	15	15	1	0	0	0	1
Suncus murinus	laur			0	11	15	1	0	0	0	1
Suncus etruscus	laur			0	2.1	15	1	0	0	0	1
Sorex minutus	laur			0	5	15	1	0	0	0	1

Sorex araneus	laur		0	10.4	15	1	0	0	0	1
Sorex cinereus	laur		0	4	15	1	0	0	0	1
Sorex vagrans	laur		0	5	80	1	0	0	0	1
Sorex monticolus	laur		0	7.1	80	1	0	0	0	1
Blarina brevicauda	laur		0	16	80	1	0	0	0	1
Cryptotis parva	laur		0	4.2	15	1	0	0	0	1
Neomys fodiens	laur		0	15	15	1	0	0	0	1
Neomys anomalus	laur		0	12	15	1	0	0	0	1
Myosorex varius	laur		0	15	26	1	0	0	0	1
Talpa europaea	laur		0	98	15	1	0	0	0	1
Cynopterus sphinx	laur	chir	0	90	110	1	0	0	0	1
Eidolon helvum	laur	chir	0	280	110	1	0	0	0	1
Epomophorus crypturus	laur	chir	0	104.5	110	1	0	0	0	1
Epomophorus gambianus	laur	chir	0	125	110	1	0	0	0	1
Pteropus giganteus	laur	chir	0	700	110	1	0	0	0	1
Pteropus tonganus	laur	chir	0	650	110	1	0	0	0	1
Rousettus aegyptiacus	laur	chir	0	131	110	1	0	0	0	1
Micropteropus pusillus	laur	chir	0	30	110	1	0	0	0	1
Rhinolophus landeri	laur	chir	0	6	26	1	0	0	0	1
Rhinolophus megaphyllus	laur	chir	0	11.5	26	1	0	0	0	1
Rhinolophus ferrumequinum	laur	chir	0	20.5	26	1	0	0	0	1
Rhinolophus hipposideros	laur	chir	0	7	26	1	0	0	0	1
Rhinolophus euryale	laur	chir	0	12.8	26	1	0	0	0	1
Hipposideros commersoni	laur	chir	0	127	15	1	0	0	0	1
Hipposideros caffer	laur	chir	0	7.7	15	1	0	0	0	1
Hipposideros ater	laur	chir	0	9	15	1	0	0	0	1
Megaderma spasma	laur	chir	0	42.5	15	1	0	0	0	1
Megaderma lyra	laur	chir	0	42.5	15	1	0	0	0	1
Lavia frons	laur	chir	0	32	15	1	0	0	0	1
Rhinopoma hardwickii	laur	chir	0	11	26	1	1	0	1	2
Desmodus rotundus	laur	chir	0	43	32	3	0	0	0	3
Glossophaga soricina	laur	chir	0	9.5	32	1	0	0	0	1
Leptonycteris yerbabuenae	laur	chir	0	21.3	32	1	0	0	0	1
Rhynchonycteris naso	laur	chir	0	3.9	62	1	0	0	0	1
Saccopteryx leptura	laur	chir	0	7.3	62	1	0	0	0	1
Saccopteryx bilineata	laur	chir	0	13.2	62	1	0	0	0	1
Nycteris macrotis	laur	chir	0	11.5	26	1	0	0	0	1
Nycteris nana	laur	chir	0	6.5	26	1	0	0	0	1
Nycteris thebaica	laur	chir	0	20.5	26	1	0	0	0	1
Chaerephon pumilus	laur	chir	0	12	296	1	0	0	0	1
Molossus molossus	laur	chir	0	14.3	26	1	0	0	0	1
Tadarida aegyptiaca	laur	chir	0	15.3	26	1	0	0	0	1
Eptesicus fuscus	laur	chir	0	17	26	1	0	0	0	1
Nycticeius humeralis	laur	chir	0	8.3	26	1	0	0	0	1
Nyctophilus gouldi	laur	chir	0	9.5	26	1	0	0	0	1
Lasiurus borealis	laur	chir	0	10.4	26	1	0	0	0	1
Lasiurus cinereus	laur	chir	0	18.8	26	1	0	0	0	1
Pipistrellus nathusii	laur	chir	0	8.5	26	1	0	0	0	1
Pipistrellus pipistrellus	laur	chir	0	6.5	26	1	0	0	0	1

Pipistrellus kuhlii	laur	chir	0	7.5	26	1	0	0	0	1
Pipistrellus ceylonicus	laur	chir	0	7.5	26	1	0	0	0	1
Pipistrellus subflavus	laur	chir	0	5.2	26	1	0	0	0	1
Nyctalus noctula	laur	chir	0	26	26	1	0	0	0	1
Corynorhinus townsendii	laur	chir	0	8	26	1	0	0	0	1
Vespadelus regulus	laur	chir	0	6	26	1	0	0	0	1
Vespertilio murinus	laur	chir	0	17.5	26	1	0	0	0	1
Antrozous pallidus	laur	chir	0	26	26	1	0	0	0	1
Lasionycteris noctivagans	laur	chir	0	10.4	26	1	0	0	0	1
Myotis nigricans	laur	chir	0	5.1	26	1	0	0	0	1
Myotis nattereri	laur	chir	0	7.5	26	1	0	0	0	1
Myotis myotis	laur	chir	0	34	26	1	0	0	0	1
Myotis lucifugus	laur	chir	0	9	26	1	0	0	0	1
Myotis sodalis	laur	chir	0	16.5	26	1	0	0	0	1
Myotis tricolor	laur	chir	0	9.5	26	1	0	0	0	1
Myotis velifer	laur	chir	0	9.8	26	1	0	0	0	1
Myotis albescens	laur	chir	0	5.5	26	1	0	0	0	1
Miniopterus schreibersii	laur	chir	0	12.5	26	1	0	0	0	1
Noctilio albiventris	laur	chir	0	40.2	15	1	0	0	0	1
Manis temminckii	laur		0	8000	26	4	0	0	0	4
Manis tricuspis	laur		0	2300	26	4	0	0	0	4
Acinonyx jubatus	laur	carn	0	43000	4	1	1	0	1	2
Caracal caracal	laur	carn	0	7434	4	1	1	0	1	2
Felis silvestris	laur	carn	0	3708.3	4	1	1	0	1	2
Felis nigripes	laur	carn	0	1620	4	1	1	0	1	2
Felis chaus	laur	carn	0	6650	4	1	1	0	1	2
Leopardus tigrinus	laur	carn	0	16000	4	1	1	0	1	2
Leopardus pardalis	laur	carn	0	13000	4	1	1	0	1	2
Leopardus wiedii	laur	carn	0	3220	4	1	1	0	1	2
Leptailurus serval	laur	carn	0	9040	4	1	1	0	1	2
Lynx rufus	laur	carn	0	11000	4	1	1	0	1	2
Lynx lynx	laur	carn	0	6930	4	1	1	0	1	2
Lynx canadensis	laur	carn	0	13640	4	1	1	0	1	2
Prionailurus bengalensis	laur	carn	0	3270	4	1	1	0	1	2
Prionailurus viverrinus	laur	carn	0	39600	15	1	1	0	1	2
Puma concolor	laur	carn	0	43700	4	1	1	0	1	2
Neofelis nebulosa	laur	carn	0	20000	4	1	1	0	1	2
Panthera leo	laur	carn	0	151000	4	1	1	0	1	2
Panthera tigris	laur	carn	0	134000	4	1	1	0	1	2
Panthera onca	laur	carn	0	62000	4	1	1	0	1	2
Panthera pardus	laur	carn	0	39000	4	1	1	0	1	2
Uncia uncia	laur	carn	0	39000	4	1	1	0	1	2
Civettictis civetta	laur	carn	0	14500	43	1	1	0	1	2
Genetta tigrina	laur	carn	0	1673	43	1	1	0	1	2
Genetta genetta	laur	carn	0	2500	43	1	1	0	1	2
Arctictis binturong	laur	carn	0	14000	84	1	0	0	0	1
Cryptoprocta ferox	laur	carn	0	9500	15	1	1	0	1	2
Eupleres goudotii	laur	carn	0	1600	15	1	1	0	1	2
Fossa fossana	laur	carn	0	1582.5	15	1	1	0	1	2

Galidia elegans	laur	carn	0	807	15	1	1	0	1	2
Mungotictis decemlineata	laur	carn	0	802.5	32	1	1	0	1	2
Nandinia binotata	laur	carn	0	2500	42	1	0	0	0	1
Atilax paludinosus	laur	carn	0	2750	15	1	1	0	1	2
Crossarchus obscurus	laur	carn	0	1500	15	1	1	0	1	2
Galerella sanguinea	laur	carn	0	700	15	1	1	0	1	2
Helogale parvula	laur	carn	0	700	15	1	1	0	1	2
Herpestes ichneumon	laur	carn	0	2900	42	1	1	0	1	2
Mungos mungo	laur	carn	0	1750	42	1	1	0	1	2
Suricata suricatta	laur	carn	0	728.3	15	1	1	0	1	2
Crocuta crocuta	laur	carn	0	55300	4	1	1	0	1	2
Hyaena hyaena	laur	carn	0	54000	51	1	1	0	1	2
Hyaena brunnea	laur	carn	0	56800	4	1	1	0	1	2
Proteles cristata	laur	carn	0	12250	26	1	1	0	1	2
Vulpes vulpes	laur	carn	0	9000	103	1	1	0	1	2
Vulpes rueppellii	laur	carn	0	3000	103	1	1	0	1	2
Vulpes zerda	laur	carn	0	1500	103	1	1	0	1	2
Vulpes velox	laur	carn	0	2268	103	1	1	0	1	2
Vulpes lagopus	laur	carn	0	6000	103	1	1	0	1	2
Canis aureus	laur	carn	0	9000	15	1	1	0	1	2
Canis latrans	laur	carn	0	11000	4	1	1	0	1	2
Canis lupus	laur	carn	0	28000	4	1	1	0	1	2
Canis mesomelas	laur	carn	0	11500	51	1	1	0	1	2
Canis adustus	laur	carn	0	9000	15	1	1	0	1	2
Chrysocyon brachyurus	laur	carn	0	23000	43	1	1	0	1	2
Cuon alpinus	laur	carn	0	17000	4	1	1	0	1	2
Lycaon pictus	laur	carn	0	20000	4	1	1	0	1	2
Nyctereutes procyonoides	laur	carn	0	7500	79	1	1	0	1	2
Otocyon megalotis	laur	carn	0	3200	32	1	1	0	1	2
Speothos venaticus	laur	carn	0	7000	51	1	1	0	1	2
Urocyon cinereoargenteus	laur	carn	0	4536	43	1	1	0	1	2
Odobenus rosmarus	laur	carn	1	560000	26	1	1	0	1	2
Cystophora cristata	laur	carn	1	270000	4	1	1	0	1	2
Erignathus barbatus	laur	carn	1	340000	15	1	1	0	1	2
Halichoerus grypus	laur	carn	1	300000	4	1	1	0	1	2
Hydrurga leptonyx	laur	carn	1	324000	15	1	1	0	1	2
Leptonychotes weddellii	laur	carn	1	370000	4	1	1	0	1	2
Lobodon carcinophaga	laur	carn	1	220000	26	1	1	0	1	2
Mirounga angustirostris	laur	carn	1	660000	4	1	1	0	1	2
Mirounga leonina	laur	carn	1	4000000	4	1	1	0	1	2
Monachus schauinslandi	laur	carn	1	250000	4	1	1	0	1	2
Monachus monachus	laur	carn	1	300000	4	1	1	0	1	2
Pagophilus groenlandicus	laur	carn	1	140000	15	1	1	0	1	2
Phoca vitulina	laur	carn	1	65000	15	1	1	0	1	2
Pusa hispida	laur	carn	1	65000	4	1	1	0	1	2
Mustela eversmanii	laur	carn	0	1700	4	1	0	0	0	1
Mustela erminea	laur	carn	0	60	4	1	0	0	0	1
Mustela putorius	laur	carn	0	800	4	1	0	0	0	1
Mustela nivalis	laur	carn	0	59	4	1	0	0	0	1

Mustela frenata	laur	carn	0	102	4	1	0	0	0	1
Mustela lutreola	laur	carn	0	675	4	1	0	0	0	1
Arctonyx collaris	laur	carn	0	10500	43	1	0	0	0	1
Eira barbara	laur	carn	0	5000	34	1	0	0	0	1
Galictis cuja	laur	carn	0	1580	4	1	0	0	0	1
Gulo gulo	laur	carn	0	19500	51	1	0	0	0	1
Ictonyx striatus	laur	carn	0	1500	4	1	0	0	0	1
Martes foina	laur	carn	0	1800	43	1	0	0	0	1
Martes martes	laur	carn	0	940	43	1	0	0	0	1
Martes pennanti	laur	carn	0	4082.4	43	1	0	0	0	1
Martes zibellina	laur	carn	0	1350	51	1	0	0	0	1
Martes americana	laur	carn	0	883.6	43	1	0	0	0	1
Meles meles	laur	carn	0	5060	51	1	0	0	0	1
Mellivora capensis	laur	carn	0	11000	34	1	0	0	0	1
Neovison vison	laur	carn	0	792.5	15	1	0	0	0	1
Poecilogale albinucha	laur	carn	0	1400	4	1	0	0	0	1
Taxidea taxus	laur	carn	0	6000	4	1	0	0	0	1
Enhydra lutris	laur	carn	0	26082	15	1	0	0	0	1
Lontra provocax	laur	carn	0	7943.3	15	1	0	0	0	1
Lutra lutra	laur	carn	0	7400	15	1	0	0	0	1
Pteronura brasiliensis	laur	carn	0	34000	15	1	0	0	0	1
Ailuropoda melanoleuca	laur	carn	0	182000	207	1	0	0	0	1
Helarctos malayanus	laur	carn	0	80000	84	1	0	0	0	1
Melursus ursinus	laur	carn	0	140000	43	1	0	0	0	1
Tremarctos ornatus	laur	carn	0	140000	103	1	0	0	0	1
Ursus americanus	laur	carn	0	77270	163	1	0	0	0	1
Ursus arctos	laur	carn	0	202500	106	1	0	0	0	1
Ursus maritimus	laur	carn	0	107000	103	1	0	0	0	1
Ursus thibetanus	laur	carn	0	150000	136	1	0	0	0	1
Arctocephalus australis	laur	carn	1	48500	15	1	1	0	1	2
Arctocephalus pusillus	laur	carn	1	120000	15	1	1	0	1	2
Arctocephalus forsteri	laur	carn	1	103750	15	1	1	0	1	2
Callorhinus ursinus	laur	carn	1	55000	4	1	1	0	1	2
Eumetopias jubatus	laur	carn	1	1100000	4	1	1	0	1	2
Neophoca cinerea	laur	carn	1	190000	4	1	1	0	1	2
Otaria flavescens	laur	carn	1	320000	4	1	1	0	1	2
Zalophus californianus	laur	carn	1	181440	4	1	1	0	1	2
Mephitis mephitis	laur	carn	0	4536	136	1	0	0	0	1
Spilogale putorius	laur	carn	0	482	32	1	0	0	0	1
Bassaricyon gabbii	laur	carn	0	2800	43	1	0	0	0	1
Bassariscus astutus	laur	carn	0	985	32	1	0	0	0	1
Nasua nasua	laur	carn	0	5000	43	1	0	0	0	1
Potos flavus	laur	carn	0	1970	32	1	0	0	0	1
Procyon lotor	laur	carn	0	5270	84	1	0	0	0	1
Ailurus fulgens	laur	carn	0	3750	77	1	0	0	0	1
Equus burchellii	laur	periss	0	219000	343	2	2	1	3	5
Equus zebra	laur	periss	0	270000	343	2	2	1	3	5
Equus caballus	laur	periss	0	260000	343	2	2	1	3	5
Equus asinus	laur	periss	0	18737	343	2	2	1	3	5

Equus grevyi	laur	periss	0	390000	343	2	2	1	3	5
Tapirus indicus	laur	periss	0	380000	207	2	2	1	3	5
Tapirus terrestris	laur	periss	0	175000	153	2	2	1	3	5
Ceratotherium simum	laur	periss	0	4250000	343	2	2	1	3	5
Diceros bicornis	laur	periss	0	1081000	207	2	2	1	3	5
Rhinoceros unicornis	laur	periss	0	4000000	275	2	2	1	3	5
Sus scrofa	laur	artio	0	75000	196	2	2	1	3	5
Babyrousa babyrussa	laur	artio	0	80000	196	4	2	1	3	7
Phacochoerus aethiopicus	laur	artio	0	65000	196	2	2	1	3	5
Hylochoerus meinertzhageni	laur	artio	0	225000	196	2	2	1	3	5
Potamochoerus porcus	laur	artio	0	72270	196	2	2	1	3	5
Pecari tajacu	laur	artio	0	13640	126	4	2	1	3	7
Tayassu pecari	laur	artio	0	29500	126	4	2	1	3	7
Hexaprotodon liberiensis	laur	artio	0	272000	216	4	0	0	0	4
Hippopotamus amphibius	laur	artio	0	1277000	343	4	0	0	0	4
Camelus bactrianus	laur	artio	0	450000	275	5	1	0	1	6
Camelus dromedarius	laur	artio	0	570000	275	5	1	0	1	6
Lama glama	laur	artio	0	130000	275	5	1	0	1	6
Vicugna vicugna	laur	artio	0	50000	275	5	1	0	1	6
Oreotragus oreotragus	laur	artio	0	15500	153	6	1	0	1	7
Antidorcas marsupialis	laur	artio	0	34000	216	6	1	0	1	7
Antilope cervicapra	laur	artio	0	38000	207	6	1	0	1	7
Eudorcas thomsonii	laur	artio	0	17500	275	6	1	0	1	7
Gazella subgutturosa	laur	artio	0	23500	207	6	1	0	1	7
Gazella dorcas	laur	artio	0	21500	207	6	1	0	1	7
Madoqua kirkii	laur	artio	0	5300	275	6	1	0	1	7
Madoqua saltiana	laur	artio	0	3150	275	6	1	0	1	7
Ourebia ourebi	laur	artio	0	14500	275	6	1	0	1	7
Procapra gutturosa	laur	artio	0	27750	275	6	1	0	1	7
Raphicerus campestris	laur	artio	0	14000	275	6	1	0	1	7
Saiga tatarica	laur	artio	0	45000	207	6	1	0	1	7
Taurotragus oryx	laur	artio	0	300000	275	6	1	0	1	7
Tragelaphus eurycerus	laur	artio	0	635000	216	6	1	0	1	7
Tragelaphus scriptus	laur	artio	0	225000	153	6	1	0	1	7
Tragelaphus strepsiceros	laur	artio	0	57500	216	6	1	0	1	7
Tragelaphus angasii	laur	artio	0	292500	216	6	1	0	1	7
Bison bonasus	laur	artio	0	112500	343	6	1	0	1	7
Bison bison	laur	artio	0	825000	343	6	1	0	1	7
Bos frontalis	laur	artio	0	635040	275	6	1	0	1	7
Bos grunniens	laur	artio	0	702730	207	6	1	0	1	7
Bos taurus	laur	artio	0	250000	343	6	1	0	1	7
Boselaphus tragocamelus	laur	artio	0	272000	216	6	1	0	1	7
Bubalus bubalis	laur	artio	0	122730	207	6	1	0	1	7
Syncerus caffer	laur	artio	0	425000	275	6	1	0	1	7
Kobus kob	laur	artio	0	447000	275	6	1	0	1	7
Kobus leche	laur	artio	0	80000	275	6	1	0	1	7
Kobus ellipsiprymnus	laur	artio	0	87500	275	6	1	0	1	7
Aepyceros melampus	laur	artio	0	181000	216	6	1	0	1	7
Alcelaphus buselaphus	laur	artio	0	42000	343	6	1	0	1	7

Connochaetes taurinus	laur	artio	0	162500	343	6	1	0	1	7
Connochaetes gnou	laur	artio	0	219000	343	6	1	0	1	7
Damaliscus pygargus	laur	artio	0	160000	343	6	1	0	1	7
Ammotragus lervia	laur	artio	0	80000	275	6	1	0	1	7
Budorcas taxicolor	laur	artio	0	66000	275	6	1	0	1	7
Capra hircus	laur	artio	0	350000	275	6	1	0	1	7
Capra falconeri	laur	artio	0	45833.3	275	6	1	0	1	7
Capra ibex	laur	artio	0	71400	275	6	1	0	1	7
Capra caucasica	laur	artio	0	52500	275	6	1	0	1	7
Naemorhedus goral	laur	artio	0	71000	216	6	1	0	1	7
Oreamnos americanus	laur	artio	0	3150	275	6	1	0	1	7
Ovibos moschatus	laur	artio	0	37250	275	6	1	0	1	7
Ovis canadensis	laur	artio	0	300000	275	6	1	0	1	7
Ovis dalli	laur	artio	0	61360	275	6	1	0	1	7
Ovis aries	laur	artio	0	73710	275	6	1	0	1	7
Ovis ammon	laur	artio	0	38750	275	6	1	0	1	7
Rupicapra rupicapra	laur	artio	0	30000	275	6	1	0	1	7
Cephalophus zebra	laur	artio	0	34000	103	6	1	0	1	7
Cephalophus silvicultor	laur	artio	0	12500	103	6	1	0	1	7
Philantomba monticola	laur	artio	0	55000	275	6	1	0	1	7
Hippotragus equinus	laur	artio	0	6500	275	6	1	0	1	7
Hippotragus niger	laur	artio	0	250000	275	6	1	0	1	7
Oryx gazella	laur	artio	0	218640	216	6	1	0	1	7
Hyemoschus aquaticus	laur	artio	0	14000	79	5	1	0	1	6
Tragulus napu	laur	artio	0	5000	153	5	1	0	1	6
Alces alces	laur	artio	0	570000	207	6	1	0	1	7
Blastocerus dichotomus	laur	artio	0	108600	207	6	1	0	1	7
Capreolus capreolus	laur	artio	0	39500	153	6	1	0	1	7
Mazama americana	laur	artio	0	20000	216	6	1	0	1	7
Odocoileus hemionus	laur	artio	0	57000	275	6	1	0	1	7
Odocoileus virginianus	laur	artio	0	47730	207	6	1	0	1	7
Pudu puda	laur	artio	0	6000	153	6	1	0	1	7
Rangifer tarandus	laur	artio	0	105000	207	6	1	0	1	7
Axis axis	laur	artio	0	46000	275	6	1	0	1	7
Cervus elaphus	laur	artio	0	200000	207	6	1	0	1	7
Cervus nippon	laur	artio	0	101300	275	6	1	0	1	7
Dama dama	laur	artio	0	39000	207	6	1	0	1	7
Elaphurus davidianus	laur	artio	0	175000	275	6	1	0	1	7
Rucervus duvaucelii	laur	artio	0	257500	275	6	1	0	1	7
Rusa unicolor	laur	artio	0	162000	153	6	1	0	1	7
Antilocapra americana	laur	artio	0	40000	275	6	1	0	1	7
Giraffa camelopardalis	laur	artio	0	1017000	207	6	1	0	1	7
Okapia johnstoni	laur	artio	0	225000	153	6	1	0	1	7
Balaena mysticetus	laur	cet	1	70000000	26	4	1	0	1	5
Balaenoptera physalus	laur	cet	1	50172680	15	4	1	0	1	5
Balaenoptera acutorostrata	laur	cet	1	5854540	15	4	1	0	1	5
Balaenoptera borealis	laur	cet	1	12201386	15	4	1	0	1	5
Balaenoptera edeni	laur	cet	1	29500000	15	4	1	0	1	5
Balaenoptera musculus	laur	cet	1	39869000	15	4	1	0	1	5

Megaptera novaeangliae	laur	cet	1	31837850	15	4	1	0	1	5
Eschrichtius robustus	laur	cet	1	27000000	15	4	1	0	1	5
Cephalorhynchus hectori	laur	cet	1	40000	15	4	0	0	0	4
Delphinus delphis	laur	cet	1	80000	15	4	0	0	0	4
Globicephala macrorhynchus	laur	cet	1	2500000	4	4	0	0	0	4
Globicephala melas	laur	cet	1	3250000	4	4	0	0	0	4
Lagenorhynchus acutus	laur	cet	1	165000	15	4	0	0	0	4
Orcinus orca	laur	cet	1	4500000	4	4	0	0	0	4
Pseudorca crassidens	laur	cet	1	1600000	4	4	0	0	0	4
Sousa chinensis	laur	cet	1	85000	4	4	0	0	0	4
Stenella attenuata	laur	cet	1	110000	15	4	0	0	0	4
Stenella longirostris	laur	cet	1	75000	15	4	0	0	0	4
Stenella coeruleoalba	laur	cet	1	100000	15	4	0	0	0	4
Delphinapterus leucas	laur	cet	1	155000	15	4	0	0	0	4
Monodon monoceros	laur	cet	1	1000000	15	4	0	0	0	4
Neophocaena phocaenoides	laur	cet	1	1200000	15	4	0	0	0	4
Phocoena phocoena	laur	cet	1	55000	4	4	0	0	0	4
Phocoenoides dalli	laur	cet	1	177500	15	4	0	0	0	4
Hyperoodon ampullatus	laur	cet	1	7500000	4	4	0	0	0	4
Mesoplodon bidens	laur	cet	1	3400000	4	4	0	0	0	4
Kogia breviceps	laur	cet	1	363000	15	3	0	0	0	3
Physeter catodon	laur	cet	1	13865350	4	4	0	0	0	4

Table S2 Results of generalised least squares (GLS) and phylogenetic generalised least squares (PGLS) for linear models using ranked data between body mass, dietary crude fibre, and indices for stomach, caecum, colon, large intestine and gastrointestinal (GI) tract complexity in 599 **eutherian mammal** species; displayed are *P*-values (adjusted R^2; λ).

Independent variable(s)	Statistic	Dependent variable: Crude fibre	Stomach	Caecum	Colon	Large intestine	GI tract
BM	GLS	<0.001 (0.04)	<0.001 (0.12)	<0.001 (0.06)	<0.001 (0.02)	<0.001 (0.06)	<0.001 (0.19)
	PGLS	<0.001 (0.02; 0.9*)	0.070 (0.00; 1.0*)	0.024 (0.01; 1.0*)	0.016 (0.01; 1.0*)	0.006 (0.01; 1.0*)	0.001 (0.02; 1.0*)
CF	GLS	-	<0.001 (0.21)	<0.001 (0.25)	<0.001 (0.06)	<0.001 (0.21)	<0.001 (0.40)
	PGLS		0.504 (0.00; 1.0*)	0.006 (0.01; 1.0*)	0.079 (0.00; 1.0*)	0.004 (0.01; 1.0*)	0.022 (0.01; 1.0*)
BM	GLS	-	0.018	<0.001	0.230	<0.001	<0.001
CF			0.128	**<0.001**	0.097	**<0.001**	**<0.001**
BM x CF			<0.001 (0.29)	<0.001 (0.29)	0.292 (0.07)	0.006 (0.24)	0.005 (0.50)
	PGLS		0.413	0.065	0.249	0.051	0.064
			0.726	0.060	0.773	0.090	0.528
			0.462 (0.00; 1.0*)	0.575 (0.02; 1.0*)	0.491 (0.01; 1.0*)	0.809 (0.02; 1.0*)	0.571 (0.02; 1.0*)
Stomach	GLS	-	-	0.497 (0.00)	<0.001 (0.04)[1]	0.198 (0.00)	-
	PGLS			<0.001 (0.05; 1.0*)	0.891 (0.00; 1.0*)	<0.001 (0.03; 1.0*)	
Stomach[2]	GLS			<0.001 (0.11)[1]	<0.001 (0.10)[1]	<0.001 (0.13)[1]	
	PGLS			<0.001 (0.03; 1.0*)	0.453 (0.00; 1.0*)	0.004 (0.02; 1.0*)	

in the models with multiple independent variables, at equal *P* the variable with the higher *F* or *t* value is printed in **bold**
different results in GLS and PGLS highlighted by grey shading
[1]negative correlation; * λ significantly different from 0
[2]excluding all Eutheria with a combination of minimum stomach and minimum large intestine complexity

Table S3 Results of generalised least squares (GLS) and phylogenetic generalised least squares (PGLS) for linear models using ranked data between body mass (BM), dietary crude fibre (CF), and indices for stomach, caecum, colon, large intestine and gastrointestinal (GI) tract complexity in 547 **terrestrial eutherian mammal** species; displayed are *P*-values (adjusted R^2; λ).

Independent variable(s)	**Statistic**	**Dependent variable**					
		Crude fibre	**Stomach**	**Caecum**	**Colon**	**Large intestine**	**GI tract**
BM	GLS	<0.001 (0.17)	<0.001 (0.13)	<0.001 (0.12)	<0.001 (0.06)	<0.001 (0.12)	<0.001 (0.24)
	PGLS	<0.001 (0.04; 0.9*)	0.070 (0.00; 1.0*)	0.024 (0.01; 1.0*)	0.004 (0.02; 1.0*)	0.004 (0.02; 1.0*)	<0.001 (0.02; 1.0*)
CF	GLS	-	<0.001 (0.28)	<0.001 (0.24)	<0.001 (0.05)	<0.001 (0.19)	<0.001 (0.47)
	PGLS		0.563 (0.01; 1.0*)	0.011 (0.01; 1.0*)	0.134 (0.00; 1.0*)	0.008 (0.01; 1.0*)	0.041 (0.01; 1.0*)
BM	GLS	-	0.002	<0.001	0.002	<0.001	0.351
CF			0.857	**<0.001**	0.048	**<0.001**	**<0.001**
BM x CF			<0.001 (0.37)	<0.001 (0.31)	0.633 (0.07)	<0.001 (0.25)	<0.001 (0.54)
	PGLS		0.416	0.058	0.073	0.027	0.048
			0.736	0.065	0.634	0.085	0.521
			0.541 (0.00; 1.0*)	0.467 (0.01; 1.0*)	0.857 (0.01; 1.0*)	0.579 (0.02; 1.0*)	0.777 (0.02; 1.0*)
Stomach	GLS	-	-	0.090 (0.00)	<0.001 (0.04)[1]	0.638 (0.00)	-
	PGLS			<0.001 (0.05; 1.0*)	0.930 (0.00; 1.0*)	<0.001 (0.04; 1.0*)	

in the models with multiple independent variables, at equal *P* the variable with the higher *F* or *t* value is printed in **bold**
different results in GLS and PGLS highlighted by grey shading
[1]negative correlation; * λ significantly different from 0

Table S4 Results of generalised least squares (GLS) and phylogenetic generalised least squares (PGLS) for linear models using ranked data between body mass (BM), dietary crude fibre (CF), and indices for stomach, caecum, large intestine and gastrointestinal (GI) tract complexity in 52 **aquatic eutherian mammal** species; displayed are *P*-values (adjusted R^2; λ). There was no variation in colon complexity among these species.

Independent variable(s)	Statistic	Dependent variable: Crude fibre	Stomach	Caecum	Colon	Large intestine	GI tract
BM	GLS	0.852 (0.00)	0.016 (0.09)	0.346 (0.00)	-	0.346 (0.00)	<0.001 (0.21)
	PGLS	0.095 (0.04; 0.9*)	0.481 (0.00; 1.0*)	0.527 (0.00; 1.0*)		0.527 (0.00; 1.0*)	0.281 (0.00; 1.0*)
CF	GLS	-	0.571 (0.00)	0.223 (0.01)	-	0.223 (0.01)	0.219 (0.01)
	PGLS		0.580 (0.00; 1.0*)	0.248 (0.01; 1.0*)		0.248 (0.01; 1.0*)	0.935 (0.01; 1.0*)
BM	GLS	-	0.281	0.052	-	0.052	0.554
CF			0.599	0.088		0.088	0.955
BM x CF			0.725 (0.06)	0.020 (0.10)		0.020 (0.10)	0.553 (0.21)
	PGLS		0.647	0.052	-	0.052	0.570
			0.996	0.157		0.157	0.448
			0.808 (0.00; 1.0*)	0.012 (0.11; 1.0*)		0.012 (0.11; 1.0*)	0.263 (0.00; 1.0*)
Stomach	GLS	-	-	<0.001 (0.50)[1]	-	<0.001 (0.50)[1]	-
	PGLS			0.025 (0.08; 1.0*)[1]		0.025 (0.08; 1.0*)[1]	

different results in GLS and PGLS highlighted by grey shading

[1]negative correlation; * λ significantly different from 0

Table S5 Results of generalised least squares (GLS) and phylogenetic generalised least squares (PGLS) for linear models using ranked data between body mass (BM), dietary crude fibre (CF), and indices for stomach, caecum, colon, large intestine and gastrointestinal (GI) tract complexity in 17 **terrestrial Afrotheria** species; displayed are *P*-values (adjusted R^2; λ). Ranking of stomach and colon complexity was identical.

Independent variable(s)	Statistic	Dependent variable: Crude fibre	Stomach	Caecum	Colon	Large intestine	GI tract
BM	GLS	0.004 (0.41)	0.044 (0.19)	0.004 (0.40)	0.044 (0.19)	0.003 (0.41)	0.005 (0.38)
	PGLS	0.140 (0.08; 1.0*)	0.218 (0.04; 1.0*)	0.033 (0.22; 1.0*)	0.218 (0.04; 1.0*)	0.033 (0.22; 1.0*)	0.050 (0.18; 1.0*)
CF	GLS	-	0.049 (0.18)	<0.001 (0.91)	0.049 (0.18)	<0.001 (0.77)	<0.001 (0.63)
	PGLS		0.439 (0.00; 1.0*)	<0.001 (0.78; 0.7*)	0.439 (0.00; 1.0*)	0.003 (0.41; 1.0*)	0.020 (0.26; 1.0*)
BM	GLS	-	0.117	0.083	0.117	0.055	0.070
CF			0.141	<0.001	0.141	0.003	0.014
BM x CF			0.210 (0.23)	0.066 (0.92)	0.210 (0.23)	0.080 (0.80)	0.115 (0.67)
	PGLS		0.186	0.226	0.186	0.158	0.151
			0.318	0.019	0.318	0.094	0.137
			0.345 (0.00; 1.0*)	0.648 (0.77; 0.8*)	0.345 (0.00; 1.0*)	0.490 (0.45; 1.0*)	0.412 (0.30; 1.0*)
Stomach	GLS	-	-	0.015 (0.29)	-	<0.001 (0.62)	-
	PGLS			0.097 (0.12; 1.0*)		<0.001 (0.53; 1.0*)	

different results in GLS and PGLS highlighted by grey shading

* λ significantly different from 0

Table S6 Results of generalised least squares (GLS) and phylogenetic generalised least squares (PGLS) for linear models using ranked data between body mass (BM), dietary crude fibre (CF), and indices for stomach, caecum, colon, large intestine and gastrointestinal (GI) tract complexity in 10 **Xenarthra** species; displayed are *P*-values (adjusted R^2; λ). There was no variation in colon complexity among these species.

Independent variable(s)	Statistic	Dependent variable: Crude fibre	Stomach	Caecum	Colon	Large intestine	GI tract
BM	GLS	0.848 (0.00)	0.597 (0.00)	0.807 (0.00)	-	0.807 (0.00)	0.706 (0.00)
	PGLS	0.845 (0.00; 1.0*)	0.886 (0.00; 1.0*)	0.995 (0.00; 1.0*)		0.995 (0.00; 1.0*)	0.978 (0.00; 1.0*)
CF	GLS	-	0.058 (0.30)	0.465 (0.00)	-	0.465 (0.00)	0.010 (0.54)
	PGLS		0.414 (0.00; 1.0*)	0.139 (0.16; 1.0*)		0.139 (0.16; 1.0*)	0.239 (0.06; 1.0*)
BM	GLS	-	0.969	0.829	-	0.829	0.953
CF			0.264	0.546		0.546	0.171
BM x CF			0.768 (0.12)	0.732 (0.00)		0.732 (0.00)	0.917 (0.39)
	PGLS		0.423	0.710	-	0.710	0.578
			0.841	0.600		0.600	0.293
			0.419 (0.00; 1.0*)	0.694 (0.00; 1.0*)		0.694 (0.00; 1.0*)	0.584 (0.00; 1.0*)
Stomach	GLS	-	-	0.043 (0.35)[1]	-	0.043 (0.35)[1]	-
	PGLS			0.021 (0.44; 1.0*)[1]		0.021 (0.44; 1.0*)[1]	

different results in GLS and PGLS highlighted by grey shading

[1]negative correlation; * λ significantly different from 0

Table S7 Results of generalised least squares (GLS) and phylogenetic generalised least squares (PGLS) for linear models using ranked data between body mass (BM), dietary crude fibre (CF), and indices for stomach, caecum, colon, large intestine and gastrointestinal (GI) tract complexity in 244 **Euarchontoglires** species; displayed are *P*-values (adjusted R^2; λ).

Independent variable(s)	Statistic	Dependent variable: Crude fibre	Stomach	Caecum	Colon	Large intestine	GI tract
BM	GLS	0.007 (0.03)	<0.001 (0.22)[1]	<0.001 (0.27)	<0.001 (0.40)	<0.001 (0.42)	0.385 (0.00)
	PGLS	0.006 (0.03; 0.8*)	0.600 (0.00; 1.0*)	0.125 (0.01; 1.0*)	0.069 (0.01; 1.0*)	0.054 (0.01; 1.0*)	0.120 (0.01; 0.9*)
CF	GLS	-	0.498 (0.00)	<0.001 (0.09)	0.687 (0.00)	<0.001 (0.05)	0.035 (0.01)
	PGLS		0.878 (0.00; 1.0*)	0.142 (0.00; 1.0*)	0.637 (0.00; 1.0*)	0.167 (0.00; 1.0*)	0.501 (0.00; 0.9*)
BM	GLS	-	<0.001	0.005	<0.001	<0.001	0.727
CF			0.850	0.152	0.920	0.288	0.647
BM x CF			0.550 (0.22)	0.465 (0.32)	0.393 (0.41)	0.853 (0.43)	0.550 (0.01)
	PGLS		0.688	0.143	0.400	0.121	0.632
			0.341	0.203	0.835	0.315	0.780
			0.335 (0.00; 1.0*)	0.453 (0.01; 1.0*)	0.699 (0.00; 1.0*)	0.608 (0.00; 1.0*)	0.559 (0.00; 0.9*)
Stomach	GLS	-	-	0.001 (0.04)[1]	<0.001 (0.12)[1]	<0.001 (0.09)[1]	-
	PGLS			<0.001 (0.08; 1.0*)	0.991 (0.00; 1.0*)	<0.001 (0.06; 1.0*)	

different results in GLS and PGLS highlighted by grey shading

[1]negative correlation; * λ significantly different from 0

Table S8 Results of generalised least squares (GLS) and phylogenetic generalised least squares (PGLS) for linear models using ranked data between body mass (BM), dietary crude fibre (CF), and indices for stomach, caecum, colon, large intestine and gastrointestinal (GI) tract complexity in 69 **Primates** species; displayed are *P*-values (adjusted R^2; λ).

Independent variable(s)	Statistic	Dependent variable: Crude fibre	Stomach	Caecum	Colon	Large intestine	GI tract
BM	GLS	<0.001 (0.29)	0.132 (0.02)	<0.001 (0.34)	0.063 (0.04)	<0.001 (0.29)	<0.001 (0.26)
	PGLS	0.309 (0.00; 1.0*)	0.950 (0.00; 1.0*)	0.116 (0.02; 1.0*)	0.577 (0.00; 1.0*)	0.496 (0.00; 1.0*)	0.638 (0.00; 1.0*)
CF	GLS	-	0.015 (0.07)	0.002 (0.12)	0.034 (0.05)	0.001 (0.14)	<0.001 (0.19)
	PGLS		0.238 (0.01; 1.0*)	0.291 (0.00; 1.0*)	0.592 (0.00; 1.0*)	0.328 (0.00; 1.0*)	0.124 (0.02; 1.0*)
BM	GLS	-	0.656	0.005	0.049	0.003	0.036
CF			0.648	0.578	0.026	0.138	0.161
BM x CF			0.494 (0.05)	0.701 (0.33)	0.073 (0.08)	0.252 (0.30)	0.622 (0.28)
	PGLS		0.969	0.028	0.927	0.149	0.284
			0.525	0.060	0.420	0.101	0.094
			0.909 (0.00; 1.0*)	0.095 (0.05; 1.0*)	0.549 (0.00; 1.0*)	0.165 (0.00; 1.0*)	0.257 (0.01; 1.0*)
Stomach	GLS	-	-	0.133 (0.02)	0.376 (0.00)	0.127 (0.02)	-
	PGLS			0.725 (0.00; 1.0*)	0.915 (0.00; 1.0*)	0.869 (0.00; 1.0*)	

different results in GLS and PGLS highlighted by grey shading

* λ significantly different from 0

Table S9 Results of generalised least squares (GLS) and phylogenetic generalised least squares (PGLS) for linear models using ranked data between body mass (BM), dietary crude fibre (CF), and indices for stomach, caecum, colon, large intestine and gastrointestinal (GI) tract complexity in 161 **Rodentia** species; displayed are *P*-values (adjusted R^2; λ).

Independent variable(s)	Statistic	Dependent variable: Crude fibre	Stomach	Caecum	Colon	Large intestine	GI tract
BM	GLS	0.005 (0.04)	<0.001 (0.19)[1]	<0.001 (0.18)	<0.001 (0.11)	<0.001 (0.23)	0.021 (0.03)
	PGLS	0.120 (0.01; 0.6*)	0.678 (0.00; 0.9*)	0.332 (0.00; 1.0*)	0.100 (0.01; 1.0*)	0.170 (0.01; 1.0*)	0.295 (0.00; 0.9*)
CF	GLS	-	0.058 (0.02)	0.002 (0.06)	0.246 (0.00)	0.001 (0.06)	0.779 (0.00)
	PGLS		0.485 (0.00; 0.9*)	0.320 (0.00; 1.0*)	0.891 (0.00; 1.0*)	0.331 (0.00; 1.0*)	0.889 (0.00; 0.9*)
BM	GLS	-	0.059	0.044	0.395	0.033	0.462
CF			0.953	0.343	0.433	0.522	0.748
BM x CF			0.594 (0.18)	0.832 (0.19)	0.290 (0.11)	0.599 (0.24)	0.811 (0.02)
	PGLS		0.945	0.461	0.482	0.369	0.723
			0.464	0.528	0.740	0.613	0.682
			0.661 (0.00; 0.9*)	0.806 (0.00; 1.0*)	0.699 (0.00; 1.0*)	0.893 (0.00; 1.0*)	0.736 (0.00; 0.9*)
Stomach	GLS	-	-	0.159 (0.00)	0.072 (0.01)	0.073 (0.01)	-
	PGLS			<0.001 (0.12; 1.0*)	0.894 (0.00; 1.0*)	<0.001 (0.11; 1.0*)	

different results in GLS and PGLS highlighted by grey shading

[1]negative correlation; * λ significantly different from 0

Table S10 Results of generalised least squares (GLS) and phylogenetic generalised least squares (PGLS) for linear models using ranked data between body mass (BM), dietary crude fibre (CF), and indices for stomach, caecum, colon, large intestine and gastrointestinal (GI) tract complexity in 42 **Sciuromorpha and Castorimorpha** species; displayed are *P*-values (adjusted R^2; λ). Ranking of stomach and colon complexity was identical.

Independent variable(s)	Statistic	Dependent variable: Crude fibre	Stomach	Caecum	Colon	Large intestine	GI tract
BM	GLS	0.011 (0.13)	0.016 (0.12)	<0.001 (0.54)	0.016 (0.12)	<0.001 (0.60)	<0.001 (0.60)
	PGLS	0.079 (0.05; 0.4)	0.137 (0.03; 1.0*)	0.078 (0.05; 1.0*)	0.137 (0.03; 1.0*)	0.059 (0.06; 1.0*)	0.059 (0.06; 1.0*)
CF	GLS	-	0.058 (0.06)	0.034 (0.09)	0.058 (0.06)	0.009 (0.14)	0.009 (0.14)
	PGLS		0.613 (0.00; 1.0*)	0.571 (0.00; 1.0*)	0.613 (0.00; 1.0*)	0.537 (0.00; 1.0*)	0.537 (0.00; 1.0*)
BM	GLS	-	0.216	<0.001	0.216	0.001	0.001
CF			0.096	0.015	0.096	0.204	0.204
BM x CF			0.031 (0.20)	0.015 (0.59)	0.031 (0.20)	0.321 (0.60)	0.321 (0.60)
	PGLS		0.974	0.250	0.974	0.454	0.454
			0.575	0.543	0.575	0.898	0.898
			0.509 (0.00; 1.0*)	0.608 (0.02; 1.0*)	0.509 (0.00; 1.0*)	0.987 (0.03; 1.0*)	0.987 (0.03; 1.0*)
Stomach	GLS	-	-	0.317 (0.00)	-	<0.001 (0.26)	-
	PGLS			<0.001 (0.26; 1.0*)		<0.001 (0.68; 1.0*)	

different results in GLS and PGLS highlighted by grey shading

* λ significantly different from 0

Table S10 Results of generalised least squares (GLS) and phylogenetic generalised least squares (PGLS) for linear models using ranked data between body mass (BM), dietary crude fibre (CF), and indices for stomach, caecum, colon, large intestine and gastrointestinal (GI) tract complexity in 90 **Myomorpha** species; displayed are *P*-values (adjusted R^2; λ). There was no variation in colon complexity among these species.

Independent variable(s)	Statistic	Dependent variable: Crude fibre	Stomach	Caecum	Colon	Large intestine	GI tract
BM	GLS	0.988 (0.00)	0.143 (0.01)[1]	0.140 (0.01)	-	0.140 (0.01)	0.437 (0.00)
	PGLS	0.539 (0.00; 1.0*)	0.893 (0.00; 0.9*)	0.659 (0.00; 0.9*)		0.659 (0.00; 0.9*)	0.788 (0.00; 0.8*)
CF	GLS	-	0.217 (0.00)	0.595 (0.00)	-	0.595 (0.00)	0.340 (0.00)
	PGLS		0.432 (0.00; 0.9*)	0.534 (0.00; 0.9*)		0.534 (0.00; 0.9*)	0.634 (0.00; 0.8*)
BM	GLS	-	0.277	0.476	-	0.476	0.465
CF			0.286	0.731		0.731	0.388
BM x CF			0.618 (0.01)	0.937 (0.00)		0.937 (0.00)	0.663 (0.00)
	PGLS		0.893	0.993	-	0.993	0.895
			0.691	0.872		0.872	0.777
			0.954 (0.00; 0.9*)	0.833 (0.00; 0.9*)		0.833 (0.00; 0.9*)	0.992 (0.00; 0.8*)
Stomach	GLS	-	-	0.338 (0.00)	-	0.338 (0.00)	-
	PGLS			0.032 (0.04; 0.9*)		0.032 (0.04; 0.9*)	

different results in GLS and PGLS highlighted by grey shading

[1]negative correlation; * λ significantly different from 0

Table S11 Results of generalised least squares (GLS) and phylogenetic generalised least squares (PGLS) for linear models using ranked data between body mass (BM), dietary crude fibre (CF), and indices for stomach, caecum, colon, large intestine and gastrointestinal (GI) tract complexity in 29 **Hystricomorpha** species; displayed are *P*-values (adjusted R^2; λ). There was no variation in stomach complexity among these species.

Independent variable(s)	**Statistic**	**Dependent variable**					
		Crude fibre	**Stomach**	**Caecum**	**Colon**	**Large intestine**	**GI tract**
BM	GLS	0.279 (0.01)[1]	-	0.230 (0.02)[1]	0.001 (0.30)	0.032 (0.13)	0.032 (0.13)
	PGLS	0.390 (0.00; 0.1)		0.232 (0.02; 1.0*)	0.036 (0.12; 1.0*)	0.337 (0.00; 1.0*)	0.337 (0.00; 1.0*)
CF	GLS	-	-	0.567 (0.00)	0.114 (0.06)[1]	0.264 (0.01)[1]	0.264 (0.01)[1]
	PGLS			0.587 (0.00; 1.0*)	0.645 (0.00; 1.0*)	0.943 (0.00; 1.0*)	0.943 (0.00; 1.0*)
BM	GLS	-	-	0.384	0.024	0.170	0.170
CF				0.828	0.764	0.897	0.897
BM x CF				0.648 (0.00)	0.290 (0.31)	0.547 (0.09)	0.547 (0.09)
	PGLS			0.319	0.477	0.996	0.996
				0.847	0.635	0.650	0.650
				0.597 (0.00; 1.0*)	0.792 (0.06; 1.0*)	0.635 (0.00; 1.0*)	0.635 (0.00; 1.0*)
Stomach	GLS	-	-	-	-	-	-
	PGLS						

different results in GLS and PGLS highlighted by grey shading

[1]negative correlation; * λ significantly different from 0

Table S12 Results of generalised least squares (GLS) and phylogenetic generalised least squares (PGLS) for linear models using ranked data between body mass (BM), dietary crude fibre (CF), and indices for stomach, caecum, colon, large intestine and gastrointestinal (GI) tract complexity in 276 **terrestrial Laurasiatheria** species; displayed are *P*-values (adjusted R^2; λ).

Independent variable(s)	Statistic	Dependent variable: Crude fibre	Stomach	Caecum	Colon	Large intestine	GI tract
BM	GLS	<0.001 (0.48)	<0.001 (0.40)	<0.001 (0.47)	<0.001 (0.09)	<0.001 (0.47)	<0.001 (0.52)
	PGLS	0.008 (0.02; 1.0*)	0.100 (0.01; 1.0*)	0.095 (0.01; 1.0*)	0.047 (0.01; 1.0*)	0.095 (0.01; 1.0*)	0.018 (0.02; 1.0*)
CF	GLS	-	<0.001 (0.65)	<0.001 (0.28)	<0.001 (0.09)	<0.001 (0.28)	<0.001 (0.70)
	PGLS		0.096 (0.01; 1.0*)	0.298 (0.00; 1.0*)	0.033 (0.01; 1.0*)	0.298 (0.00; 1.0*)	0.032 (0.01; 1.0*)
BM	GLS	-	0.807	<0.001	0.707	<0.001	0.024
CF			<0.001	0.081	0.154	0.081	<0.001
BM x CF			0.006 (0.66)	0.262 (0.47)	0.007 (0.12)	0.262 (0.47)	0.005 (0.74)
	PGLS		0.197	0.176	0.215	0.176	0.067
			0.152	0.308	0.125	0.308	0.064
			0.564 (0.01; 1.0*)	0.552 (0.00; 1.0*)	0.752 (0.02; 1.0*)	0.552 (0.00; 1.0*)	0.441 (0.02; 1.0*)
Stomach	GLS	-	-	<0.001 (0.22)	0.765 (0.00)	<0.001 (0.22)	-
	PGLS			0.043 (0.01; 1.0*)	0.272 (0.00; 1.0*)	0.043 (0.01; 1.0*)	

different results in GLS and PGLS highlighted by grey shading

* λ significantly different from 0

Table S13 Results of generalised least squares (GLS) and phylogenetic generalised least squares (PGLS) for linear models using ranked data between body mass (BM), dietary crude fibre (CF), and indices for stomach, caecum, colon, large intestine and gastrointestinal (GI) tract complexity in 100 **terrestrial Carnivora** species; displayed are *P*-values (adjusted R^2; λ). There was no variation in stomach or colon complexity among these species.

Independent variable(s)	Statistic	Dependent variable: Crude fibre	Stomach	Caecum	Colon	Large intestine	GI tract
BM	GLS	0.049 (0.03)	-	0.174 (0.01)	-	0.174 (0.01)	0.174 (0.01)
	PGLS	0.412 (0.00; 0.9*)		0.658 (0.00; 1.0*)		0.658 (0.00; 1.0*)	0.658 (0.00; 1.0*)
CF	GLS	-	-	0.002 (0.09)[1]	-	0.002 (0.09)[1]	0.002 (0.09)[1]
	PGLS			0.255 (0.00; 1.0*)		0.255 (0.00; 1.0*)	0.255 (0.00; 1.0*)
BM	GLS	-	-	<0.001	-	<0.001	<0.001
CF				0.119		0.119	0.119
BM x CF				0.001 (0.21)		0.001 (0.21)	0.001 (0.21)
	PGLS			0.907	-	0.907	0.907
				0.985		0.985	0.985
				0.545 (0.00; 1.0*)		0.545 (0.00; 1.0*)	0.545 (0.00; 1.0*)
Stomach	GLS	-	-	-	-	-	-
	PGLS						

different results in GLS and PGLS highlighted by grey shading

[1]negative correlation; * λ significantly different from 0

Table S14 Results of generalised least squares (GLS) and phylogenetic generalised least squares (PGLS) for linear models using ranked data between body mass (BM), dietary crude fibre (CF), and indices for stomach, caecum, colon, large intestine and gastrointestinal (GI) tract complexity in 58 **Chiroptera** species; displayed are *P*-values (adjusted R^2; λ). There was no variation in colon complexity among these species.

Independent variable(s)	Statistic	Dependent variable: Crude fibre	Stomach	Caecum	Colon	Large intestine	GIT
BM	GLS	0.005 (0.11)	0.225 (0.01)	0.747 (0.00)	-	0.747 (0.00)	0.345 (0.00)
	PGLS	0.839 (0.00; 1.0*)	0.470 (0.00; 1.0*)	0.786 (0.00; 1.0*)		0.786 (0.00; 1.0*)	0.568 (0.00; 1.0*)
CF	GLS	-	0.709 (0.00)	0.689 (0.00)	-	0.689 (0.00)	0.876 (0.00)
	PGLS		0.645 (0.00; 1.0*)	0.823 (0.00; 1.0*)		0.823 (0.00; 1.0*)	0.730 (0.00; 1.0*)
BM	GLS	-	0.438	0.863	-	0.863	0.537
CF			0.788	0.836		0.836	0.883
BM x CF			0.752 (0.00)	0.919 (0.00)		0.919 (0.00)	0.812 (0.00)
	PGLS		0.621	0.858	-	0.858	0.598
			0.745	0.832		0.832	0.701
			0.424 (0.00; 1.0*)	0.929 (0.00; 1.0*)		0.929 (0.00; 1.0*)	0.437 (0.00; 1.0*)
Stomach	GLS	-	-	0.896 (0.00)	-	0.896 (0.00)	-
	PGLS			0.883 (0.00; 1.0*)		0.883 (0.00; 1.0*)	

different results in GLS and PGLS highlighted by grey shading

* λ significantly different from 0

Table S15 Results of generalised least squares (GLS) and phylogenetic generalised least squares (PGLS) for linear models using ranked data between body mass (BM), dietary crude fibre (CF), and indices for stomach, caecum, colon, large intestine and gastrointestinal (GI) tract complexity in 86 **Artiodactyla** species; displayed are *P*-values (adjusted R^2; λ).

Independent variable(s)	Statistic	Dependent variable: Crude fibre	Stomach	Caecum	Colon	Large intestine	GI tract
BM	GLS	0.008 (0.07)	0.630 (0.00)	0.178 (0.10)[1]	0.613 (0.00)	0.178 (0.10)[1]	0.100 (0.02)[1]
	PGLS	0.103 (0.02; 0.8*)	0.879 (0.00; 1.0*)	0.445 (0.00; 1.0*)	0.686 (0.00; 1.0*)	0.445 (0.00; 1.0*)	0.511 (0.00; 1.0*)
CF	GLS	-	0.002 (0.10)	<0.001 (0.14)[1]	<0.001 (0.15)[1]	<0.001 (0.14)[1]	0.281 (0.00)
	PGLS		0.672 (0.00; 1.0*)	0.269 (0.00; 1.0*)	0.357 (0.00; 1.0*)	0.269 (0.00; 1.0*)	0.665 (0.00; 1.0*)
BM	GLS	-	0.822	0.140	0.249	0.140	0.918
CF			0.022	0.325	0.098	0.325	0.124
BM x CF			0.867 (0.10)	0.103 (0.15)	0.300 (0.14)	0.103 (0.15)	0.506 (0.03)
	PGLS		0.973	0.979	0.931	0.979	0.748
			0.764	0.591	0.667	0.591	0.724
			0.983 (0.00; 1.0*)	0.880 (0.00; 1.0*)	0.863 (0.00; 1.0*)	0.880 (0.00; 1.0*)	0.870 (0.00; 1.0*)
Stomach	GLS	-	-	<0.001 (0.32)[1]	<0.001 (0.72)[1]	<0.001 (0.32)[1]	-
	PGLS			0.065 (0.03; 1.0*)[1]	<0.001 (0.32; 1.0*)[1]	0.065 (0.03; 1.0*)[1]	

different results in GLS and PGLS highlighted by grey shading

[1]negative correlation; * λ significantly different from 0

Table S16 Results of generalised least squares (GLS) and phylogenetic generalised least squares (PGLS) for linear models using ranked data between body mass (BM), dietary crude fibre (CF), and indices for stomach, caecum, colon, large intestine and gastrointestinal (GI) tract complexity in 114 **Cetartiodactyla** species; displayed are *P*-values (adjusted R^2; λ).

Independent variable(s)	Statistic	Dependent variable: Crude fibre	Stomach	Caecum	Colon	Large intestine	GI tract
BM	GLS	<0.001 (0.13)[1]	<0.001 (0.12)[1]	0.001 (0.08)[1]	0.185 (0.01)[1]	0.001 (0.08)[1]	<0.001 (0.20)[1]
	PGLS	0.743 (0.00; 1.0*)	0.642 (0.00; 1.0*)	0.384 (0.00; 1.0*)	0.401 (0.00; 1.0*)	0.384 (0.00; 1.0*)	0.318 (0.00; 1.0*)
CF	GLS	-	<0.001 (0.47)	<0.001 (0.29)	0.771 (0.00)	<0.001 (0.29)	<0.001 (0.67)
	PGLS		0.191 (0.01; 1.0*)	0.220 (0.00; 1.0*)	0.738 (0.00; 1.0*)	0.220 (0.00; 1.0*)	0.074 (0.02; 1.0*)
BM	GLS	-	0.848	0.721	0.037	0.721	0.249
CF			<0.001	0.007	0.077	0.007	<0.001
BM x CF			0.562 (0.48)	0.755 (0.29)	0.119 (0.02)	0.755 (0.29)	0.756 (0.69)
	PGLS		0.463	0.266	0.266	0.266	0.155
			0.510	0.644	0.802	0.644	0.461
			0.564 (0.00; 1.0*)	0.415 (0.00; 1.0*)	0.399 (0.00; 1.0*)	0.415 (0.00; 1.0*)	0.278 (0.02; 1.0*)
Stomach	GLS	-	-	0.049 (0.03)	<0.001 (0.30)[1]	0.049 (0.03)	-
	PGLS			0.860 (0.00; 1.0*)	<0.001 (0.14; 1.0*)[1]	0.860 (0.00; 1.0*)	

different results in GLS and PGLS highlighted by grey shading

[1]negative correlation; * λ significantly different from 0

Table S17 Results of generalised least squares (GLS) and phylogenetic generalised least squares (PGLS) for linear models using ranked data between body mass (BM), dietary crude fibre (CF), and indices for stomach, caecum, colon, large intestine and gastrointestinal (GI) tract complexity in 96 **Ungulata (Artiodactyla and Perissodactyla)** species; displayed are *P*-values (adjusted R^2; λ).

Independent variable(s)	Statistic	Dependent variable: Crude fibre	Stomach	Caecum	Colon	Large intestine	GI tract
BM	GLS	0.005 (0.07)	0.012 (0.06)[1]	0.315 (0.00)	0.075 (0.02)	0.315 (0.00)	0.001 (0.10)[1]
	PGLS	0.108 (0.02; 0.9*)	0.743 (0.00; 1.0*)	0.660 (0.00; 1.0*)	0.922 (0.00; 1.0*)	0.660 (0.00; 1.0*)	0.501 (0.00; 1.0*)
CF	GLS	-	0.384 (0.00)	0.140 (0.01)[1]	0.194 (0.01)[1]	0.140 (0.01)[1]	0.821 (0.00)
	PGLS		0.843 (0.00; 1.0*)	0.392 (0.00; 1.0*)	0.535 (0.00; 1.0*)	0.392 (0.00; 1.0*)	0.599 (0.00; 1.0*)
BM	GLS	-	0.904	0.558	0.710	0.558	0.877
CF			0.077	0.324	0.172	0.324	0.198
BM x CF			0.356 (0.07)	0.842 (0.02)	0.814 (0.04)	0.842 (0.02)	0.282 (0.09)
	PGLS		0.790	0.980	0.823	0.980	0.601
			0.981	0.635	0.805	0.635	0.554
			0.851 (0.00; 1.0*)	0.909 (0.00; 1.0*)	0.812 (0.00; 1.0*)	0.909 (0.00; 1.0*)	0.700 (0.00; 1.0*)
Stomach	GLS	-	-	<0.001 (0.62)[1]	<0.001 (0.87)[1]	<0.001 (0.62)[1]	-
	PGLS			<0.001 (0.12; 1.0*)[1]	<0.001 (0.44; 1.0*)[1]	<0.001 (0.12; 1.0*)[1]	

different results in GLS and PGLS highlighted by grey shading

[1]negative correlation; * λ significantly different from 0