Molecular phylogeny of living xenarthrans and the impact of character and taxon sampling on the placental tree rooting.

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Electronic Appendix:

Table-sup 1. Taxonomic sampling used for this study. Accession numbers are given for each sequence used. Sequences new to this study are marked with *.

Taxonomy	Species	Common name	ADRA2B	BRCA1 exon 11	VWF exon 28
MARSUPIALIA					
DIDELPHIMORPHIA	*Didelphis virginiana*	Virginian Opossum	Y15943	—	—
	Didelphis marsupialis	Large American Opossum	—	AF284033	AF226848
DIPROTODONTIA	*Macropus giganteus*	Grey Kangaroo	—	—	AJ224670
	Macropus rufus	Red Kangaroo	AJ251183	AF497261	—
	Vombatus ursinus	Wombat	AJ427416	AF284031	AF497260
PLACENTALIA					
XENARTHRA					
CINGULATA					
Dasypodidae	*Dasypus novemcinctus*	Nine-banded Armadillo	AJ427366*	AF484222*	AJ278158
	Dasypus kappleri	Great Long-nosed Armadillo	AJ427367*	AF484223*	AJ427361*
	Chaetophractus villosus	Larger Hairy Armadillo	AJ315935	AF284000	AF076480
	Euphractus sexcinctus	Six-banded Armadillo	AJ427368*	AF484224*	AJ427364*
	Zaedyus pichiy	Pichi	AJ427369*	AF484226*	AJ427365*
	Tolypeutes matacus	Southern Three-banded Armadillo	AJ427370*	AF484227*	AJ427362*
	Cabassous unicinctus	Southern Naked-tailed Armadillo	AJ427371*	AF484228*	AJ278159
	Priodontes maximus	Giant Armadillo	AJ427372*	AF484225*	AJ427363*
VERMILINGUA					
Myrmecophagidae	*Myrmecophaga tridactyla*	Giant Anteater	AJ427373*	AF484232*	AJ278157

	Tamandua tetradactyla	Collared Anteater	AJ427374*	AF484230*	AJ278161
	Cyclopes didactylus	Pygmy Anteater	AJ315943	AF484231*	AJ278156
FOLIVORA					
Bradypodidae	*Bradypus tridactylus*	Pale-throated Three-toed Sloth	AJ251179	AF284002	U31603
Megalonychidae	*Choloepus didactylus*	Southern Two-toed Sloth	AJ427375*	AF484229*	AJ278160
AFROTHERIA					
CHRYSOCHLORIDAE	*Amblysomus hottentotus*	Hottentot Golden Mole	Y12526	AF284027	U97534
TENRECIDAE	*Echinops telfairi*	Lesser Hedgehog-tenrec	Y17692	AF284025	AF076478
MACROSCELIDEA					
Macroscelidae	*Elephantulus rufescens*	Rufous Elephant Shrew	—	AF284028	U31612
	Macroscelides proboscideus	Short-eared Elephant Shrew	Y12524	—	—
HYRACOIDEA					
Procaviidae	*Procavia capensis*	Common Rock Hyrax	Y12523	AF284023	U31619
PROBOSCIDEA					
Elephantidae	*Elephas maximus*	Asian Elephant	Y12525	AF284022	U31611
SIRENIA					
Dugongidae	*Dugong dugon*	Dugong	Y15947	AF284019	U31608
TUBULIDENTATA					
Orycteropodidae	*Orycteropus afer*	Aardvark	Y12522	AF284030	U31617
EUARCHONTOGLIRES					
SCANDENTIA					
Tupaiidae	*Tupaia glis*	Common Tree Shrew	—	—	AF061063
	Tupaia tana	Large Tree Shrew	AJ251187	AF284006	—
DERMOPTERA					

Cynocephalidae	*Cynocephalus variegatus*	Malayan Flying Lemur	AJ251182	AF019081	U31606
PRIMATES					
Hominidae	*Homo sapiens*	Human	M34041	L78833	X06828
LAGOMORPHA					
Leporidae	*Lepus crawshayi*	Jackrabbit	AJ427254	—	AJ224669
	Lepus capensis	Cape Hare	—	AF284005	—
RODENTIA					
Muridae	*Rattus norvegicus*	Brown Rat	M32061	AF036760	AJ224673
	Mus musculus	Domestic Mouse	M94583	U36475	AJ238390
Sciuridae	*Glaucomys volans*	Southern Flying Squirrel	—	AF284003	AJ224667
	Sciurus vulgaris	Eurasian Red Squirrel	AJ315942	—	—
Aplodontidae	*Aplodontia rufa*	Mountain Beaver	AJ427256	AF332045	AJ224662
Hystricidae	*Trichys fasciculata*	Long-tailed Porcupine	AJ427266	—	AJ224675
	Hystrix africaeaustralis	Cape Porcupine	—	AF284004	—
LAURASIATHERIA					
EULIPOTYPHLA					
Erinaceidae	*Erinaceus europaeus*	Western European Hedgehog	Y12521	AF284008	U97536
Talpidae	*Scalopus aquaticus*	Eastern Mole	AF496636	AF284007	AF076479
CHIROPTERA					
Pteropodidae	*Pteropus hypomelanus*	Variable Flying Fox	—	—	AF203777
	Pteropus rayneri	Solomons Flying Fox	AF337539	AF203751	—
	Cynopterus sphinx	Greater Short-nosed Fruit Bat	AJ251181	AF203750	U31605
Megadermatidae	*Megaderma lyra*	False Vampire Bat	AF337537	AF203749	U31616
Rhinolophidae	*Hipposideros commersoni*	Commerson's Roundleaf Bat	AF337538	AF203752	AF203778

Vespertilionidae	*Myotis velifer*	Cave Myotis	—	—	AF203775
	Myotis daubentoni	Daubenton's Bat	AF337540	AF203746	—
Molossidae	*Tadarida brasiliensis*	Brazilian Free-tailed Bat	AF337542	AF203747	U31623
Phyllostomidae	*Tonatia bidens*	Greater Round-eared Bat	AF337541	AF203745	U31622
PHOLIDOTA					
Manidae	*Manis sp.*	Pangolin	AJ251185	AF284009	U97535
CARNIVORA					
Felidae	*Felis catus*	Domestic Cat	AJ251174	AF284018	U31613
CETARTIODACTYLA					
Camelidae	*Lama glama*	Llama	—	AF284012	AF108835
	Lama pacos	Llama	AJ315941	—	—
Suidae	*Sus scrofa*	Domestic Pig	AJ251177	AF284014	S78431
Bovidae	*Bos taurus*	Domestic Cow	Y15944	AF284013	X63820
Hippopotamidae	*Hippopotamus amphibius*	Common Hippopotamus	AJ251178	AF284015	AF108832
Physeteridae	*Physeter catodon*	Sperm Whale	AJ427417	AF284016	AF108834
PERISSODACTYLA					
Equidae	*Equus asinus*	Donkey	—	—	U31610
	Equus caballus	Domestic Horse	Y15945	AF284010	—
Rhinocerotidae	*Ceratotherium simum*	White Rhinoceros	—	—	U31604
	Diceros bicornis	Black Rhinoceros	AJ251184	AF284011	—

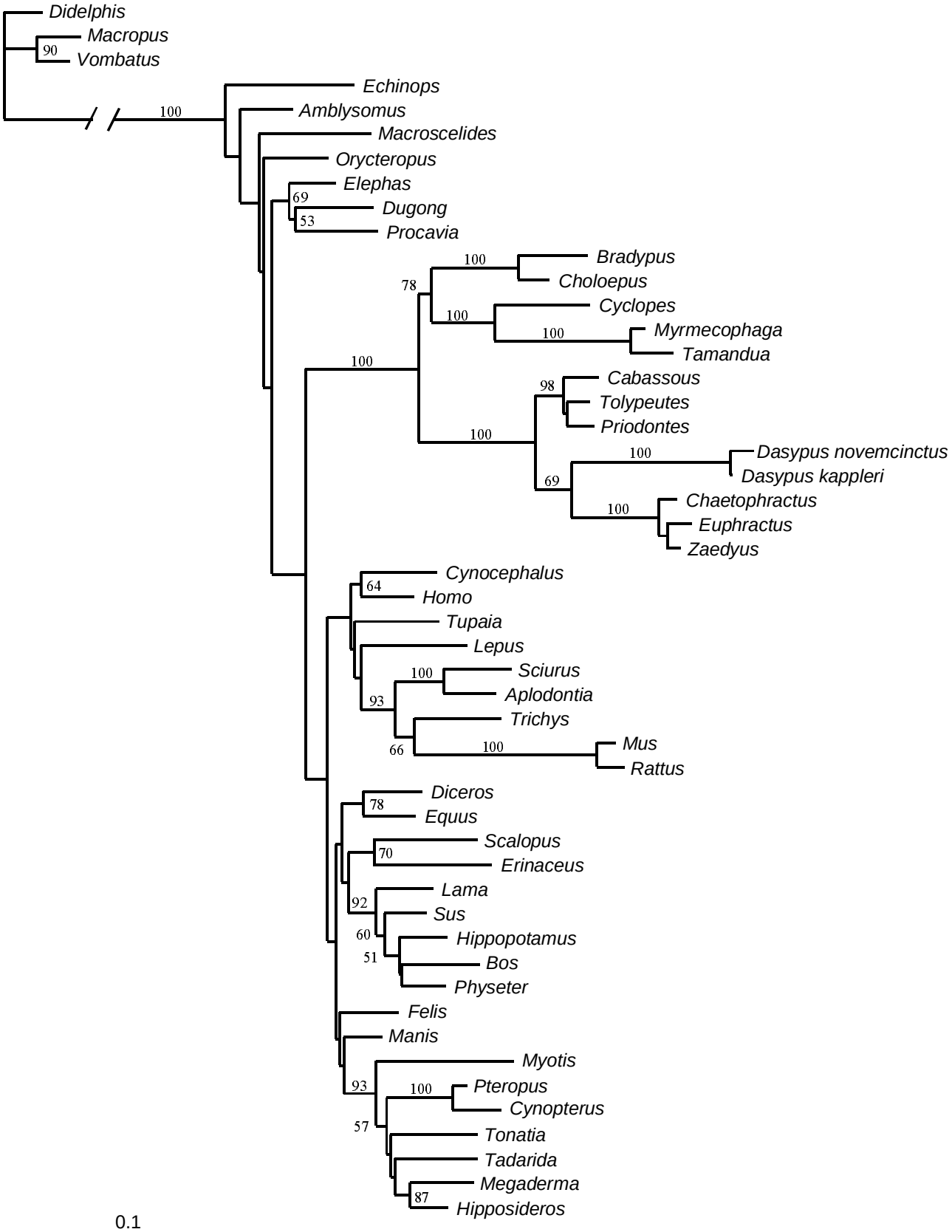

Fig-sup 1. Maximum likelihood phylogram of placental mammal relationships using only 1st and 2nd codon positions of ADRA2B (768 sites). The branch leading to the marsupial outgroup (*Didelphis*, *Macropus*, and *Vombatus*) was reduced by half. ML bootstrap proportions (100 replications) > 50% are indicated at each node. GTR + Γ_8 ML parameters estimated with PAUP*: rate matrix (AC: 2.18, AG: 5.76, AT: 0.73, CG: 1.37, CT: 3.65, GT: 1.00), $\alpha = 0.42$.

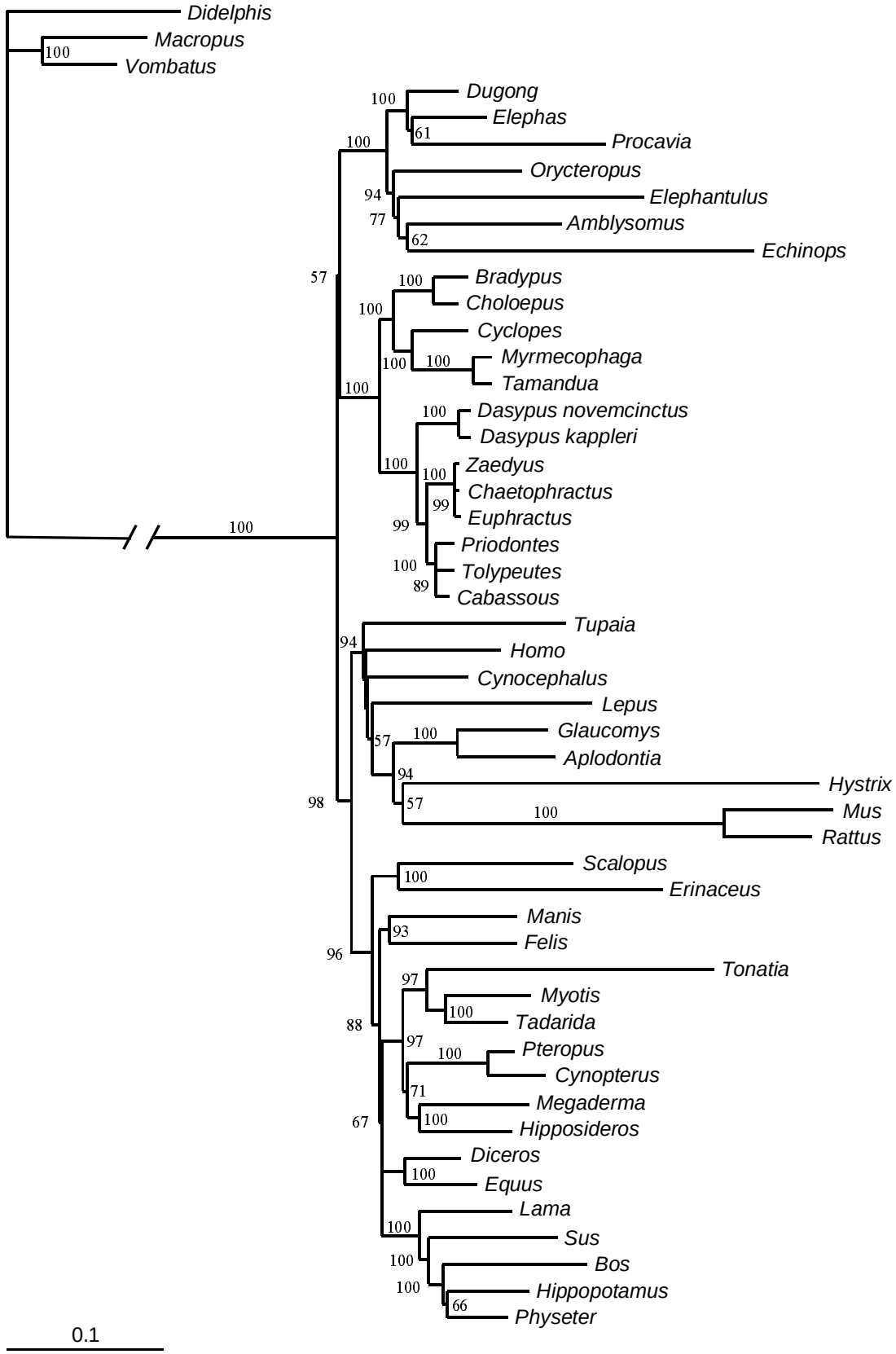

Fig-sup 2. Maximum likelihood phylogram of placental mammal relationships using all codon positions of BRCA1 (2788 sites). The branch leading to the marsupial outgroup (*Didelphis*, *Macropus*, and *Vombatus*) was reduced by half. ML bootstrap proportions (100 replications) > 50% are indicated at each node. GTR + Γ_8 ML parameters estimated with PAUP*: rate matrix (AC: 1.11, AG: 4.15, AT: 0.63, CG: 1.3, CT: 4.91, GT: 1.00), $\alpha = 2.66$.

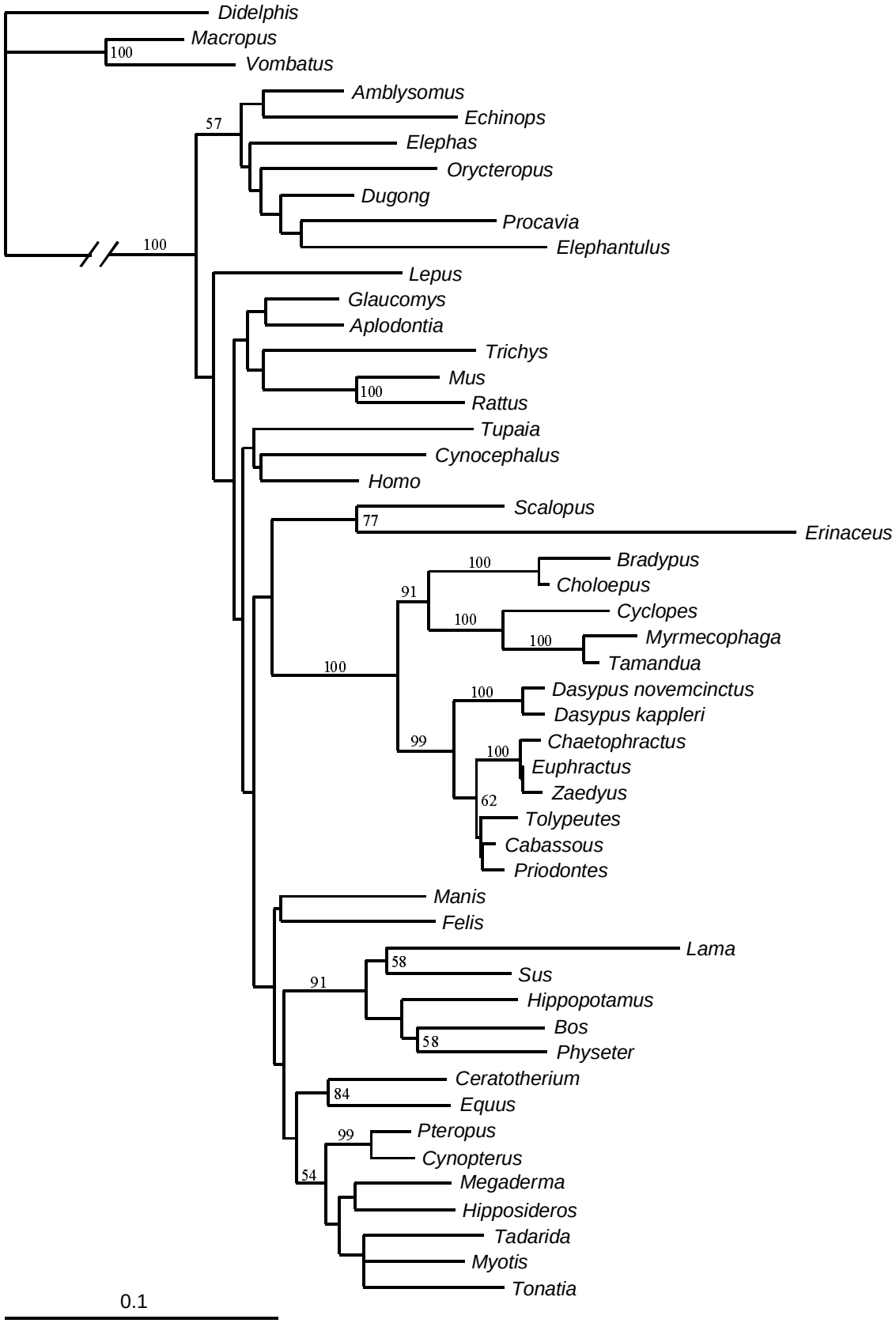

Fig-sup 3. Maximum likelihood phylogram of placental mammal relationships using only 1st and 2nd codon positions of VWF (794 sites). The branch leading to the marsupial outgroup (*Didelphis*, *Macropus*, and *Vombatus*) was reduced by half. ML bootstrap proportions (100 replications) > 50% are indicated at each node. GTR + Γ_8 ML parameters estimated with PAUP*: rate matrix (AC: 2.11, AG: 6.31, AT: 1.31, CG: 2.41, CT: 5.59, GT: 1.00), $\alpha = 0.54$.