

SUPPLEMENTAL MATERIAL

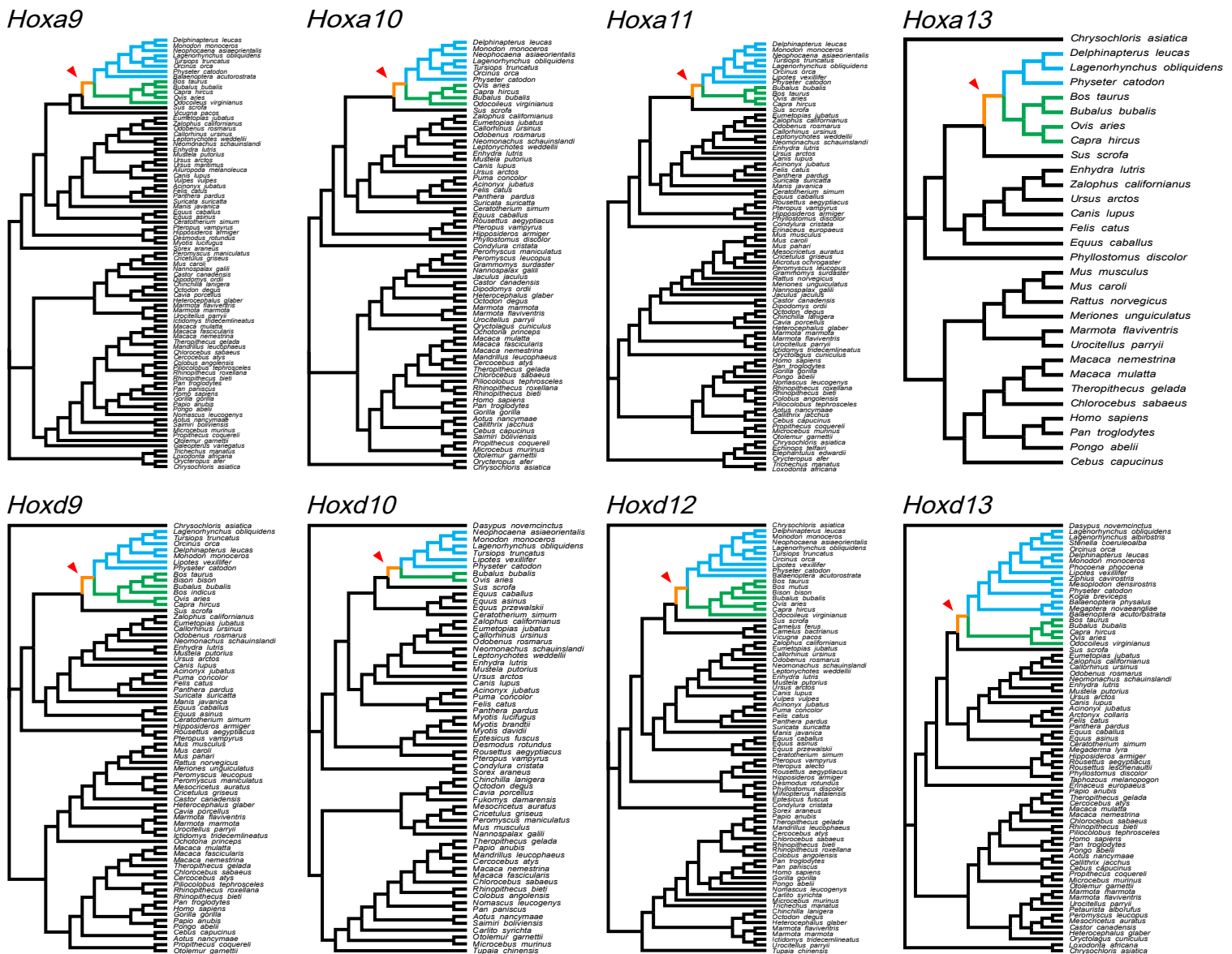


Figure S1 Species trees for the evolutionary analyses of other 5' *HoxA* and *HoxD* genes. Cetacean branches are shown in blue, ruminants in green, and the ancestor of Cetuminantia in orange. The foreground branch tested in the two-ratio model is indicated by the red arrow.

Table S1 *Hoxd11* sequences from 53 mammalian species analyzed in this study

Scientific name	Common name	Order	GenBank accession No.
<i>Lagenorhynchus acutus</i>	Atlantic white-sided dolphin	Cetartiodactyla	KU842356 [†]
<i>Lagenorhynchus obliquidens</i>	Pacific white-sided dolphin	Cetartiodactyla	XM_027127561
<i>Tursiops truncatus</i>	Atlantic bottle-nosed dolphin	Cetartiodactyla	XM_019923102
<i>Delphinapterus leucas</i>	Beluga whale	Cetartiodactyla	XM_022570088
<i>Lipotes vexillifer</i>	Baiji	Cetartiodactyla	XM_007451091
<i>Mesoplodon densirostris</i>	Blainville's beaked whale	Cetartiodactyla	KU842358 [†]
<i>Mesoplodon bidens</i>	Sowerby's beaked whale	Cetartiodactyla	KU842360 [†]
<i>Hyperoodon ampullatus</i>	Northern bottlenose whale	Cetartiodactyla	KU842357 [†]
<i>Kogia breviceps</i>	Pygmy sperm whale	Cetartiodactyla	KU842359 [†]
<i>Physeter catodon</i>	Sperm whale	Cetartiodactyla	XM_028479389
<i>Megaptera novaeangliae</i>	Humpback whale	Cetartiodactyla	KU842353 [†]
<i>Balaenoptera acutorostrata</i>	Minke whale	Cetartiodactyla	KU842355 [†]
<i>Balaenoptera physalus</i>	Fin whale	Cetartiodactyla	KU842354 [†]
<i>Bos indicus</i>	Zebu	Cetartiodactyla	XM_019970465
<i>Bos taurus</i>	Cow	Cetartiodactyla	NM_001206324
<i>Bubalus bubalis</i>	Domestic water buffalo	Cetartiodactyla	XM_025274446
<i>Capra hircus</i>	Goat	Cetartiodactyla	KU842361 [†]
<i>Ovis aries</i>	Sheep	Cetartiodactyla	XM_012143655
<i>Sus scrofa</i>	Pig	Cetartiodactyla	KU842362 [†]
<i>Equus caballus</i>	Horse	Perissodactyla	XM_023622041
<i>Equus asinus</i>	Donkey	Perissodactyla	KU842363 [†]
<i>Enhydra lutris</i>	Sea otter	Carnivora	XM_022500652
<i>Eumetopias jubatus</i>	Steller sea lion	Carnivora	XM_028121142
<i>Zalophus californianus</i>	California sealion	Carnivora	XM_027588962
<i>Callorhinus ursinus</i>	Northern fur seal	Carnivora	XM_025849734
<i>Ursus arctos</i>	Brown bear	Carnivora	XM_026492502
<i>Canis lupus</i>	Dog	Carnivora	XM_014110871
<i>Acinonyx jubatus</i>	Cheetah	Carnivora	XM_027055446
<i>Felis catus</i>	Cat	Carnivora	XM_023259477
<i>Panthera pardus</i>	Leopard	Carnivora	XM_019460318
<i>Rousettus aegyptiacus</i>	Egyptian fruit bat	Chiroptera	XM_016135227
<i>Hipposideros armiger</i>	Great leaf-nosed bat	Chiroptera	KU842364 [†]
<i>Theropithecus gelada</i>	Gelada baboon	Primates	XM_025404734
<i>Macaca mulatta</i>	Rhesus macaque	Primates	XM_028830867
<i>Chlorocebus sabaeus</i>	Vervet monkey	Primates	XM_007965427
<i>Ptilocolobus tephrosceles</i>	Ugandan red Colobus	Primates	XM_023212447
<i>Pan troglodytes</i>	Chimpanzee	Primates	XM_012143655
<i>Homo sapiens</i>	Human	Primates	NM_021192
<i>Cebus capucinus</i>	White-faced capuchin	Primates	XM_017538277
<i>Microcebus murinus</i>	Gray mouse lemur	Rodentia	XM_012753436
<i>Propithecus coquereli</i>	Coquerel's sifaka	Rodentia	XM_012650720
<i>Urocitellus parryi</i>	Arctic ground squirrel	Rodentia	XM_026405647
<i>Marmota flaviventris</i>	Yellow-bellied marmot	Rodentia	XM_027946088
<i>Nannospalax galili</i>	Nannospalax ehrenbergi galili	Rodentia	XM_008855308
<i>Peromyscus leucopus</i>	White-footed mouse	Rodentia	XM_028880580
<i>Microtus ochrogaster</i>	Prairie vole	Rodentia	XM_005346592
<i>Grammomys surdaster</i>	Thicket rat	Rodentia	XM_028763085
<i>Mus pahari</i>	Gairdner's shrew-mouse	Rodentia	XM_021194688
<i>Mus musculus</i>	Mouse	Rodentia	NM_008273
<i>Mus caroli</i>	Ryukyu mouse	Rodentia	XM_021180939
<i>Oryctolagus cuniculus</i>	Rabbit	Lagomorpha	NM_001206421
<i>Ochotona princeps</i>	American pika	Lagomorpha	XM_004577034
<i>Chrysochloris asiatica</i>	Cape golden mole	Afrosoricida	XM_006866667

[†]New sequences in this study.